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COMPILATION OF FEDERAL, STATE AND LOCAL LAWS CONTROLLING NONPOINT POLLUTANTS. AN ANALYSIS OF THE LAW AFFECTING AGRICULTURE, CONSTRUCTION, MINING AND SILVICULTURE ACTIVITY

ASPEN SYSTEMS CORPORATION, GERMANTOWN, MD.

PREPARED FOR
ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D. C.
OFFICE OF WATER PLANNING AND STANDARDS

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Washington, D.C. 20460

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This report is issued under Section 304(e)(1)(A,B,C) of Public Law 92-500. This Section provides:

> "The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall issue to appropriate Federal agencies, the States, water pollution control agencies, and agencies designated under Section 208 of this Act, within one year after the effective date of this subsection (and from time to time thereafter)...information including guidelines for identifying and evaluating the nature and extent of non-point sources of pollutants resulting from -
>
> (A) agricultural and silvicultural activities, including runoff from fields and crop and forest lands;
>
> (B) mining activities, including runoff and siltation from new, currently operating, and abandoned surface and underground mines;
>
> (C) all construction activity, including runoff from the facilities resulting from such construction;...."

This publication is the second in a series issued under Section 304(e)(1)(A,B,C) of Public Law 92-500 concerning the control of water pollution from nonpoint sources. The initial report, "Methods for Identifying and Evaluating the Nature and Extent of Non-Point Sources of Pollutants," was issued in October 1973 (Publication No. EPA-430/9-73-014).

This report provides information on selected Federal, State and local regulations for the control of pollutants associated with agricultural, silvicultural, mining and construction activities.

Mark A. Pisano, Director
Water Planning Division

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This Report is prepared in response to the requirements of P.L. 92-500, Section 304(e)(1)(A,B,C).

The Report provides information on selected Federal, State and local regulations for the control of pollutants associated with agricultural, silvicultural, mining and construction activities. The Report was prepared by EPA for use by State officials and concerned citizens as well as for use as a legislative reference tool for planners, engineers, lawyers, resource managers and environmental organizations.

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*

Prepared for
Office of Water and Hazardous Materials
United States Environmental Protection Agency
Washington, D.C. 20460

*

SEPTEMBER, 1975

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INTRODUCTION

Under §304 (e) (1) (A,B,C) of Public Law 92-500, the Federal Water Pollution Control Act Amendments of 1972, the Administrator of the Environmental Protection Agency was directed, after consultation with appropriate Federal and State agencies and other interested persons, to:

> "issue to appropriate Federal agencies, the States, water pollution control agencies, and agencies designated under §208. . . [] . . .information including guide lines for identifying and evaluating the nature and extent of nonpoint sources of pollutants resulting from
>
> (A) agricultural and silvicultural activities, including runoff from fields and crop and forest land;
>
> (B) mining activities, including runoff and siltation from new, currently operated and abandoned surface and underground mines;
>
> (C) all construction activity, including runoff from the facilities resulting from such construction; . . ."

Pursuant to this statutory mandate, a number of reports were prepared under contract from the Environmental Protection Agency and summarized in October of 1973.

The general consensus of these studies is that the principal contaminant responsible for water pollution from nonpoint sources is sediment resulting from erosion. Sediment is transported to surface waters by runoff. Most of the sediment (on a total mass basis) can be attributed to agricultural activities, but it was found that construction and surface mining accounted for large quantities of sediment in some local areas. Sediment was found to adversely affect water quality consequently increasing the cost of water supply and storm water management.

The studies reaffirmed the observation that well-managed forests are generally not susceptable to erosion unless disturbed by poor timber harvest practices or natural disasters such as fire, while contamination of surface waters and ground water by heavy metals and minerals, largely results from the weathering of mining refuse and ore formations exposed by mining activities.

Nutrients, chiefly nitrogen and phosphorus, in the runoff from agricultural lands can lead to eutrophication of surface waters. Infiltration of nutrients, particularly nitrates, can lead to contamination of ground water and may reach toxic levels under certain conditions. The studies indicated that lands managed for intensive crop production contributed most of the nutrients. This contribution was attributable principally to the synthetic fertilizers.

Pesticides represent another significant contaminant which can be attributed to agriculture, silviculture, construction, and mining activities. Transport mechanisms for pesticides are perhaps the most complex for any contaminant, since pesticides can contaminate atmospheric systems as a result of spray drift, and ultimately reach surface waters by means of fallout, washout and other precipitation processes, followed by runoff and enter groundwater through seepage, or infiltration.

Organic materials including crop debris, livestock waste, forest litter, and solid waste enter surface waters chiefly by means of runoff. Certain organic wastes of animal and human origin can be a source of biological contamination and can become a significant factor in public health considerations.

Control of water pollution from nonpoint sources raises complex legal problems. The first consideration is the definition of "pollution" itself and the distinction that must be drawn between "contamination" and "pollution." Although legislation may seek to maintain water quality by controlling water pollution, practical administration of water "pollution" laws depends upon limitation of contamination to levels below some established standard.

The second major area of legal concern involves identification of the polluting agent responsible for the pollution, and leads to a paradox:

> If the particular source of pollution can be identified, is not that source of pollution a "point" source? And conversely, if a specific source of pollution cannot be identified with reasonable certainty, how can legal sanctions be imposed?

The significance of this paradox becomes more meaningful since the proximate causal agent of water pollution from nonpoint sources is runoff, a natural process which occurs even in the absence of human activity.

The Environmental Protection Agency commissioned this study to investigate direct and indirect legal means of controlling water pollution from nonpoint sources in agriculture, silviculture, construction and mining. The purpose of this study is to look at selected legislation at the Federal, State and local levels in order to determine the potential for controlling pollution from nonpoint sources through existing statutory practices and procedures.

A general survey of the basic water pollution control statutes of the fifty states and the Federal Government as well as a full text computer search of all the statutes of twelve states revealed little direct legislation suitable to control water pollution from nonpoint sources. This can be understood in light of the fact that many state water pollution control laws have been patterned after the Federal Water Pollution Control Act in response to the mandate of Congress to control water pollution from point sources.

EFFECTIVE INDIRECT LEGISLATIVE CONTROL

The control of water pollution from nonpoint sources necessarily involves regulation of the use of land, a matter traditionally left to the States and delegated by the States to local municipalities. Although there are many different forms of local government, the powers of local government are derived from the essential sovereignty of the people through a variety of means.

If the sovereignty of the people were to be expressed by direct grant of power to local political subdivisions such as county, city, town, village, or borough, all the demands of the people for clean water could and would be addressed directly to what will be referred to as a "municipality," in this report. However, the existence of sovereign municipalities ceased, for all practical purposes, with the decline of feudalism in the western world, and the benefits, if any, of the city-state have not been enjoyed for centuries. What remains is the subdelegation of popular sovereignty to the United States by means of the Constitution.

The development of the Federal system of government in the United States and its accompanying concepts of reserved, retained, implied and express powers, coupled with the demands of the industrial revolution to homogenize governmental form to comport with the needs of commerce, led inevitably to consolidation of power at the state, and ultimately, the national level, assuring the eventual demise of independent municipal governmental power.

It is, however, appropriate to recognize the several classes of municipal organization and the source of whatever sovereignty each has been granted in order to suggest effective approaches to legislative action at the local level. If a local municipality has, or should have, the power to regulate the use or abuse of land within its geopolitical jurisidiction, then it may be inappropriate, unnecessary and perhaps politically naive, to seek state legislation to control a pollution problem which will ultimately have to be addressed at the municipal governmental level.

Generally, municipalities fall within one of four classes based on the extent of their authority to request their own actions.

Strict home rule municipalities are those whose power derives directly from the people within the jurisidiction of the political unit. Generally such municipalities may take all action necessary to provide those services and impose those restrictions on individual activity which are considered necessary and appropriate for the governance of the political unit. Where such jurisdictions are found, any attempt to address a problem such as abatement of water pollution from nonpoint sources would have to be made at the municipal level and the entire gamut of benefits, restrictions, licenses, and penalties would be the province of the legislative branch of the local government. While this may be the purest form of home rule, none such exists, and it is presented here only as a basis for comparison.

Modified home rule exists in several states and usually takes a form such as that described in the Wisconsin Constitution, where municipalities are granted, by the people of the state by way of a constitutional provision, the power to determine their local affairs, subject only to the state constitution and to those enactments of the legislature which prescribe requirements, powers and benefits to be uniformly applied to all municipalities. Such a grant of power would ordinarily require an examination of state statues to determine which, if any, legislation of general application has been enacted which would affect the ability of the municipality to act in a "governmental way." In the absence of such a retention of legislative power by the state, the local municipality would, theoretically at least be the governmental unit to address in seeking to control water pollution from nonpoint sources.

Modified home rule is probably the most common application of the principles of self-government seen in the United States. Whether the Wisconsin example is used, or whether the charter form of organization as seen in California is employed, most states place some specific limitations on the power of municipal governments, which usually, but not always, include: maximum indebtedness (which is the only express limitation in Wisconsin), prescribed methods for election of officers, disposition of property and granting of franchises.

Express and comprehensive home rule as declared by the people via an instrument, such as the local government Bill of Rights contained in the New York Constitution, leaves no doubt as to reserved or restrained powers. A reading of the constitutional grant to municipalities in New York would enable one to determine with assurance whether the legislative initiative to control nonpoint sources of water pollution should be taken by the state or by the municipalities.

The "no home rule" states are typified by Indiana, in which local, general purpose governments may do only those things which the state legislature specifically permits by grant of authority to the municipality. Such grants do not have the protection of Constitutional mandate, but may be amended, repealed, or otherwise modified by state legislative action. A modification of this absolute power of the state which provides that the state legislature exercises such power only as a trustee for the people of the municipalities, is found in several states; Vermont provides one such example. Typically, in those states in which the municipality looks to the state for its powers, the statutes will be replete with grants and procedures so specific as to leave no doubt which unit of government should be addressed to meet a given problem.

There are certain subtleties which should be looked for when determining the extent to which an express power gives rise to implied powers which may, in turn, be exercisable by local municipalities. The language which follows is a limitation on implied power in a section of law dealing with general powers:

> "Any such power may be exercised by a city under authority only if, and to the extent that, such power is not by express provision denied by law or by express provision vested by any other law in . . ."

The above grant of power could be expanded if one substitutes the following language:

> "Any such power may be expressed by a city under authority of this chapter only if, and to the extent that, such power is not denied or preempted by any other law or is not vested by any other law in a state agency."

Existing state enabling acts permit many local municipalities to regulate certain activities which can become nonpoint sources of water pollution. Although such authority has traditionally been limited to construction activities, to a lesser extent, agriculture and silviculture can also be regulated by local government.

If it can be demonstrated that agriculture, silviculture, construction or mining activities directly affect water quality, regulations can be promulgated to limit those activities for under such circumstances, the general police powers inherent in local government to protect the public health safety and welfare are sufficient authorization.

This study, in addition to compiling and analyzing legislative techniques which may be used to abate nonpoint sources of pollution measures, to the extent possible, the effectiveness of various statutory means. These measurements (or comparisons) are based on certain assumptions that have come to be considered axiomatic. For example, at the upper end of an effectiveness measurement would be a statute which creates an administrative agency having the power to determine standards, promulgate guidelines, employ monitoring and enforcement personnel, prosecute on its own violations both civil and criminal, and which is given the budget necessary to carry out its functions. At the lower end is a statute which declares an (pollution) activity to be contrary to public policy but creates no duty or responsibility for any branch of government. In between are a variety of techniques and procedures which may prove to be quite effective. It is, of course, of vital importance to consider these measures of effectiveness as exemplary since it is only in practice that actual effectiveness can be determined.

WATER POLLUTION CONTROL STATUTES

The responsibility for controlling water pollution is distributed among the Federal, State and municipal governments. In each of the fifty States there is statutory authority for controlling water pollution. When this legislation was enacted, many legislators were concerned with controlling point sources of water pollution, such as sewage treatment plants or industrial complexes, and nonpoint sources had not yet become a major concern. Since legislation for the direct control of water pollution can be readily identified in all fifty States, the scope of each State's water pollution control legislation was examined and categorized as to whether or not the language used in the legislation is broad enough to control both point and nonpoint source pollution.

State water pollution control legislation generally falls into four main categories: (1) those statutes which deal only with point source pollution and which are not drawn broadly enough to include pollution from nonpoint sources; (2) legislation which specifically covers both point sources and nonpoint sources of water pollution; (3) legislation which does not specifically consider point or nonpoint sources of pollution, since no specific reference is made to the source of the pollution; (4) statutes which are more narrowly drawn and which define point sources but do not include a definition of nonpoint sources. Statutes in the last category of legislation may or may not be broad enough to include pollution from both point source and nonpoint sources. For these statutes the effective language is probably the purpose clause which usually indicates a legislative intent to abate and control water pollution, without addressing the source of pollution. It is likely that the water pollution control acts of this type may be construed to cover both point sources and nonpoint sources of water pollution although the legislation does not specifically consider nonpoint sources.

One state explicitly limits enforcement of its water pollution control legislation only to point sources. Although the Nevada Water Pollution Control Law[1] defines pollutant and pollution broadly enough to include pollution from nonpoint sources as well as point sources, the only unlawful act for which sanctions may be imposed, however, makes it "unlawful for any person to discharge from any point source any pollutant into any waters of the state."

Water pollution control legislation in two other states, Iowa[2] and Kansas,[3] while not expressly limited to the regulation of pollution from point sources considers only specific instances or types of pollution so that it is doubtful that there is any authority for control of water pollution from other than point sources.

The Iowa legislation provides that the Water Quality Commission shall adopt rules necessary to implement the water pollution control program and to establish standards for water quality and effluents under which permits may be granted for some activities, but permits are required only for the construction of waste disposal systems and new outlets for waste discharges.[4] The only nonpoint source of pollution covered by the statute is animal farm waste, since the Commission may require operators of feed lot operations to obtain permits under certain conditions. No other direct controls over nonpoint sources of water pollution are provided for in the statutes, and it appears from the language of the statute that the Commission lacks broad authority to control other nonpoint sources of water pollution.

The Kansas legislation[5] provides that the State Board of Health may make such regulations as it deems necessary to protect surface and subsurface waters of the State from pollution caused by oil, gas, or salt water injection wells, or underground storage reservoirs. The State Board of Health is also empowered to control the discharge of sewage and to establish water quality standards. The specificity of the Kansas statute as to what kinds of water pollution may be controlled can be construed to imply that the legislature did not intend the State Board of Health to have the power to control any other kinds of pollution.

Legislatures in only two states, Georgia and Massachusetts, specifically addressed the problem of nonpoint source pollution in the statutes they enacted. The Georgia Water Quality Control Act[6] defines "pollution," and "waste" in very broad simple terms:

> "(f) 'Pollution,' means the man-made or man induced alteration of the chemical, physical, biological and radiological integrity of water.
>
> "(g) 'Sewage,' means the water-carried waste products or discharges from human beings or from the rendering of animal products, or chemical or other wastes from residences, public or private buildings, or industrial establishments, together with such ground, surface or storm water as may be present.
>
> "(h) 'Industrial Waste,' means any liquid, solid or gaseous substance or combination thereof resulting from a process of industry, manufacture, or business or from the development of any natural resources.
>
> "(i) 'Other Waste,' means liquid, gaseous, or solid substances, except industrial waste and sewage, which may cause or tend to cause pollution in any water of the State.
>
> * * *
>
> "(n) 'Point Source,' means any discernable, confined or discreet conveyed including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discreet feature, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.
>
> "(o) 'Nonpoint Source,' means any source which discharges pollutants into the water of the State other than a point source."[7]

and then goes on to say:

> "it shall be unlawful to use any water of the State for disposal of sewage, industrial waste, or other waste, except in such a manner as to conform to and comply with all rules, regulations, orders, and permits established under the provisions of this act."[8]

The Georgia Water Quality Control Act gives the Georgia Water Waste Commission broad powers to control all kinds of pollution in the state's waters. Nonpoint sources are specifically provided for, and the Commission is given the power to promulgate rules and regulations as it deems necessary to carry out the intent of the act.

The legislation[9] establishing the Massachusetts Division of Water Pollution Control contains only one broad definition of "Pollutant":

> "Pollutant", any element or property of sewage, agricultural, industrial or commercial waste, runoff, leachate, heating effluent, or other matter, in whatever form and whether originating at a point or major nonpoint source, which is or which may be discharged, drained or otherwise introduced into any sewage system treatment works of waters of the Commonwealth."[10]

The definition expressly mentions both point sources and nonpoint sources. The legislation also goes on to provide penalties for:

> "Any person who, directly or indirectly, throws, drains, runs, discharges or allows the discharge of any pollutants into waters of the Commonwealth, except in conformity with a permit. . ."[11]

The Division of Water Pollution Control is empowered to promulgate the rules and regulations necessary for carrying out the purposes of the statute as well as providing penalties for violation of the statute or any of the rules and regulations promulgated pursuant to the act.

The water pollution control legislation in Georgia and Massachusetts are examples of legislation which is broadly drawn, authorizing the responsible state agency to exercise the powers necessary to regulate all pollution from both point and nonpoint sources.

The water pollution control legislation in the remaining forty-seven States contains no specific restrictions with respect to nonpoint sources but neither does it contain any explicit provisions for the regulating of pollution from nonpoint sources. The statutes in these states fall into two categories.

The first consists of those statutes which are broadly drawn but contain no reference to point source or nonpoint source pollution. Because the statutes are broadly drawn and not limited by references to specific types or sources of pollution, the state agency responsible for administering the statute apparently has a sufficiently broad legislative mandate to regulate and abate pollution from both point sources and nonpoint sources.

The second category consists of legislation which, while the general definitions are sufficiently broad to include pollution from both point sources and nonpoint sources, the legislation addresses itself specifically to certain types of pollution or includes a definition of point source pollution but no corresponding reference to nonpoint source in the legislation. It is certainly arguable in states with such legislation that, although specific types of pollution are referenced in the legislation, the general purpose clause and the general definition of pollution are sufficiently broad to include nonpoint source of pollution. However, it is also arguable that when the legislatures enacted statutes which specifically mention one or more types or sources of pollution, the legislative intent was merely to control pollution from those sources which were specifically identified.

Water pollution control legislation of more than half the States falls into the first of these two categories. The water pollution control legislation of South Carolina[12] and of Pennsylvania[13] are examples and, although nonpoint sources of water pollution are not specifically addressed in either of these states' statutes, the statutory language is broad enough to include the regulation of both point sources and nonpoint sources.

The South Carolina Pollution Control Act,[14] selected provisions of which appear below, is a good example of this type of broadly drawn water pollution control act. The definitions of "industrial waste" and "other waste" are so broad as to cover almost any contaminant including heat which might enter the waters of the state. The legislature did not stop with these comprehensive definitions. The legislation went on to include not only sewage, industrial waste, and other waste but also any substance which may cause or tend to cause contamination of the environment or which may be injurious to public health or welfare or which may damage property, plant, animal or marine life, or which interferes with the enjoyment of life or use of property in its definition of pollution. When taken together with the legislative policy declared in ¢63-195.1[15] of the statute, this appears to be a sufficiently broad grant of statutory authority for controlling both point sources and nonpoint sources of water pollution.

> S.C. Code Ann. (Supp. 1974)
>
> "63-195. Citation of chapter; definitions.-This chapter may be cited as the 'Pollution Control Act' and, when used herein, unless the context otherwise requires:
>
> * * *
>
> "(4) 'Sewage' means the water-carried human or animal wastes from residences, buildings, industrial establishments or other places, together with such ground water infiltration and surface water as may be present and the admixture with sewage of industrial wastes or other wastes shall also be considered 'sewage';
>
> "(5) 'Industrial waste' means any liquid, gaseous, solid or other waste substance or a combination

thereof resulting from any process of industry, manufacturing, trade or business or from the development of any natural resources;

"(6) 'Other wastes' means garbage, refuse, decayed wood, sawdust, shavings, bark, sand, clay, lime, cinders, ashes, offal, oil, gasoline, other petroleum products or by-products, tar, dye stuffs, acids, chemicals, dead animals, heated substances, and all other products, by-products or substances not sewage or industrial waste which may cause or tend to cause pollution of the waters of the State;

"(7) 'Pollution' means the presence in the environment of any substance, including but not limited to sewage, industrial waste, other waste, air contaminant, or any combination thereof in such quantity and of such characteristics and durations as may cause, or tend to cause, the environment of the State to be contaminated, unclean, noxious, odorous, impure or degraded, or which is, or tends to be, injurious to human health or welfare; or which damages property, plan, animal or marine life; or which interferes with enjoyment of life or use of property;

* * *

" 63-195.1. Declaration of policy.-It is declared to be the public policy of the State to maintain reasonable standards of purity of the air and water resources of the State, consistent with the public health, safety and welfare of its citizens, maximum employment, the industrial development of the State, the propagation and protection of terrestrial and marine flora and fauna, and the protection of physical property and other resources. It is further declared that to secure these purposes and the enforcement of the provisions of this chapter, the Pollution Control Authority shall have authority to abate, control and prevent pollution.

" 63-195.12. Unlawful to cause or permit pollution of waters; liability for damages.-(a) It shall be unlawful for any person, directly or indirectly, negligently or willfully, to throw, drain, run, allow to seep or otherwise discharge into any of the waters of the State organic or inorganic matter that shall cause or tend to cause a condition of pollution.

"(b) Any person who discharges organic or inorganic matter into the waters of this State as described

> in subsection (a) to the extent that the fish, shellfish, aquatic animals, wildlife or plant life indigenous to or dependent upon the receiving waters or any property are damaged or destroyed shall be liable to the State for such damages as may be proved. The action shall be brought by the State in its own name or in the name of the Authority.
>
> "The amount of any judgment for damages recovered by the State, less cost, shall be remitted to the agency, commission, department of political subdivision of the State that has jurisdiction over the fish, shellfish, aquatic animals, wildlife or plant life damaged or destroyed.
>
> "The civil remedy herein provided shall not be exclusive, and any agency, commission, department or political subdivision of the State with appropriate authority may undertake in its own name an action to recover such damages as it may deem advisable independent of this subsection."

The Pennsylvania Clean Streams Act[16] is another example of legislation which has been broadly written and may provide control of water pollution from both point sources and nonpoint sources. The definitions found in the Pennsylvania legislation are not as broad as those found in the South Carolina statute. However, the declaration of legislative policy, taken together with §691.402 which provides that any activity not otherwise requiring a permit which is found to create danger of pollution may be regulated, grant a sufficiently broad mandate to the Sanitary Water Board to regulate nonpoint as well as point sources of water pollution.

Under the statutory authority of the Clean Streams Act, the Pennsylvania Sanitary Water Board has promulgated comprehensive regulations controlling the most common types of nonpoint sources pollution-sedimentation.[17] The regulations apply to any construction or agricultural activity involving more than twenty-five acres of land. The rules and regulations go on to set forth various means of controlling erosion and runoff, and provide for diversion terraces, interceptor channels, channels of conveyance, or sedimentation basins. The regulations also provide for restoration of the land at the end of all earth moving activities.

The regulations issued under the Clean Streams Act of Pennsylvania illustrate the scope of regulatory activities which may be undertaken under a broad statutory grant. The Pennsylvania legislation makes no reference to nonpoint sources of pollution; yet the Sanitary Water Board has promulgated detailed regulations aimed at minimizing runoff and sedimentation from any construction or agriculture project involving earth moving.

Tit. 35 §691.4 Declaration of policy

"(1) Clean, unpolluted streams are absolutely essential if Pennsylvania is to attract new manufacturing industries and to develop Pennsylvania's full share of the tourist industry;

"(2) Clean, unpolluted water is absolutely essential if Pennsylvanians are to have adequate out of door recreational facilities in the decades ahead;

"(3) It is the objective of the Clean Streams Law not only to prevent further pollution of the waters of the Commonwealth, but also to reclaim and restore to a clean, unpolluted condition every stream in Pennsylvania that is presently polluted;

"(4) The prevention and elimination of water pollution is recognized as being directly related to the economic future of the Commonwealth; and

"(5) The achievement of the objective herein set forth requires a comprehensive program of watershed management and control."

Tit. 35 §691.301 Prohibition against discharge of industrial wastes

"No person or municipality shall place or permit to be placed, or discharged or permit to flow, or continue to discharge or permit to flow, into any of the water of the Commonwealth any industrial wastes, except as hereinafter provided in this act."

Tit. 35 §691.401 Prohibition against other pollutions

"It shall be unlawful for any person or municipality to put or place into any of the waters of the

> Commonwealth, or allow or permit to be discharged from property owned or occupied by such person or municipality into any of the waters of the Commonwealth any substance of any kind of character resulting in pollution as herein defined. Any such discharge is hereby declared to be a nuisance."

Tit. 23 §691.402. Potential pollution

> "(a) Whenever the board finds that any activity, not otherwise requiring a permit under this act, including but not limited to the impounding, handling, storage, transportation, processing or disposing of materials or substances, creates a danger of pollution of the waters of the Commonwealth or that regulation of the activity is necessary to avoid such pollution, the board may, by rule or regulation, require that such activity be conducted only pursuant to a permit issued by the department or may otherwise establish the conditions under which such activity shall be conducted, or the board may issue an order to a person or municipality regulating a particular activity. Rules and regulations adopted by the board pursuant to this section shall give the persons or municipalities affected a reasonable period of time to apply for and obtain any permits required by such rules and regulations.
>
> "(b) Whenever a permit is required by rules and regulations issued pursuant to this section, it shall be unlawful for a person or municipality to conduct the activity regulated except pursuant to a permit issued by the department. Conducting such activity without a permit, or contrary to the terms or conditions of a permit or conducting an activity contrary to the rules and regulations of the board or conducting an activity contrary to an order issued by the department, is hereby declared to be a nuisance."

The Minnesota Water Pollution Control Act[18] is a good example of the kind of statute which falls into the fourth category of legislation. The language used to define terms in the Minnesota Water Pollution Control Act is similar to that found in South Carolina's legislation, and the definitions of "Industrial waste," "other wastes" and "pollution of water" are so broad as to include both point source and nonpoint source pollution, however, the legislation goes on to define point source[19] but does not define nonpoint source.

The Minnesota Water Pollution Control Act requires a person to obtain permits only when operating or installing a "disposal system or other point source," and the provisions dealing with violations or prohibitions refer only to the construction, installation or operation of the disposal system without having submitted to plans or obtained a written permit for such construction, installation or operation. Thus, the Water Pollution Control Act of Minnesota, although its definitions are broad enough to encompass nonpoint sources of water pollution, only authorize regulation of point sources. The pollution control agency which was established under the Minnesota statutes is authorized to coordinate pollution control activities involving water, air and land, but is given no additional powers other than those noted previously to control water pollution.

Minn. Stat. (1964), as amended, (Supp. 1974)

115.01 Definitions

> "Subdivision 1. The following words and phrases when used in chapter 115 and, with respect to the pollution of the waters of the state, in chapter 116, unless the context clearly indicates otherwise, shall have the meanings ascribed to them in this section.
>
> "Subdivision 2. 'Sewage' means the water-carried waste products from residences, public buildings, institutions or other buildings, or any mobile source, including the excrementitious or other discharge from the bodies of human beings or animals, together with such ground water infiltration and surface water as may be present.
>
> "Subdivision 3. 'Industrial waste' means any liquid, gaseous or solid waste substance resulting from any process of industry, manufacturing trade

or business or from the development of any natural resource.

"Subdivision 4. 'Other wastes' mean garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, sand, ashes, offal, oil, tar, chemicals, dredged spoil, solid waste, incinerator residue, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment rock, cellar dirt or municipal or agricultural waste, and all other substances not included within the detentions of sewage and industrial waste set forth in this chapter which may pollute or tend to pollute the waters of the state.

"Subdivision 5. 'Pollution of water', 'water pollution', or 'pollute the water' means: (a) the discharge of any pollutant into any waters of the state or the contamination of any waters of the state so as to create a nuisance or render such waters unclean, or noxious, or impure so as to be actually or potentially harmful or detrimental or injurious to public health, safety or welfare, to domestic, agricultural, commercial, industrial, recreational or other legitimate uses, or to livestock, animals, birds, fish or other aquatic life; or (b) the man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of waters of the state.

"Subdivision 6. 'Sewer system' means pipe lines or conduits, pumping stations, and force mains, and all other constructions, devices, and appliances appurtenant thereto, used for conducting sewage or industrial waste or other wastes to a point of ultimate disposal.

"Subdivision 7. 'Treatment works' means any plant, disposal field, lagoon, dam, pumping station, constructed drainage ditch or surface water intercepting ditch, incinerator, area devoted to sanitary land fills, or other works not specifically mentioned herein, installed for the purpose of treating, stabilizing or disposing of sewage, industrial waste, or other wastes.

"Subdivison 8. 'Disposal system' means a system for disposing of sewage, industrial waste and other wastes, and includes sewer systems and treatment works.

"Subdivision 9. 'Waters of the state' means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

"Subdivision 10. 'Person' means the state or any agency or institution thereof, any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity, including, but not limited to, association, commission or any interstate body, and includes any officer or governing or managing body of any municipality, governmental subdivision, or public or private corporation, or other entity.

"Subdivision 11. 'Agency' means the Minnesota pollution control agency.

"Subdivision 12. 'Discharge' means the addition of any pollutant to the waters of the state or to any disposal system.

"Subdivision 13. 'Pollutant' means any 'sewage,' 'industrial waste,' or 'other wastes,' as defined in chapter 115, discharged into a disposal system or to waters of the state.

"Subdivision 14. 'Toxic pollutants' means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the agency, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformation, in such organisms or their offspring.

"Subdivision 15. 'Point source' means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

"Subdivision 16. 'Standards' means effluent standards, effluent limitations, standards of performance for new sources, water quality standards, pretreatment standards, and prohibitions.

"Subdivision 17. 'Schedule of compliance' means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard."

115.04 Disposal systems and point sources

"Subdivision 1. Information. Any person operating or installing a disposal system or other point source, or portion thereof, when requested by the agency, or any member, employee or agent thereof, when authorized by it, shall furnish to it any information which he may have or which is relevant to the subject or chapter 115 and, with respect to the pollution of waters of the state, of chapter 116.

"Subdivision 2. Examination of records. The agency or any member, employee or agent thereof, when authorized by it, upon presentation of credentials may examine and copy any books, papers, records or memoranda pertaining to the installation, maintenance or operation or discharge, including, but not limited to, monitoring data, of disposal systems or other point sources, in accordance with the purposes of chapter 115 and, with respect to the pollution of waters of the state, chapter 116.

"Subdivision 3. Access to premises. Whenever it shall be necessary for the purposes of chapter 115 and, with respect to pollution of waters of the state, chapter 116, the agency or any member, employee, or agent thereof, when authorized by it, upon presentation of credentials, may enter upon any property, public or private, for the purpose of obtaining information or examination of records or conducting surveys or investigations."

115.07 Violations and prohibitions

"Subdivision 1. Obtain permit. It shall be unlawful for any person to construct, install or operate a disposal system, or any part thereof, until plans therefore shall have been submitted

> to the commission unless the commission shall
> have waived the submission thereof to it and a
> written permit therefore shall have been granted
> by the commission."

The State legislation discussed has been included by way of example. A number of other states have similar legislation. An appendix with citation to each State's water pollution control legislation with selected sections from that legislation appears in Appendix A.

The general purpose clause and general definition of pollution in most states are sufficiently broad to include regulation of point and nonpoint sources of pollution. However, it is arguable that where the legislature has enacted statutes which specifically referred to one or more types of pollution, or one or more sources of pollution, the legislature intended only to control pollution from those sources which were specifically mentioned.

FOOTNOTES

WATER POLLUTION CONTROL STATUTES

[1] Nev. Rev. Stat. §§ 445.131-445.354 (1973).

[2] Iowa Code Ann. §§ 455B.1-455B.107 (1971), *as amended*, (Supp. 1974).

[3] Kan. Stat. Ann. §§ 65-161 to 65-171F (1972), *as amended*, (Supp. 1974).

[4] Iowa Code Ann. § 455B.32 (Supp. 1974).

[5] Kan. Stat. Ann. § 65-170 (Supp. 1974).

[6] Ga. Code Ann. §§ 17-501 to 17-530 (1974), *as amended*, (Supp. 1974).

[7] *Id.* at § 17-503 (Supp. 1974).

[8] *Id.* at § 17-510 (Supp. 1074).

[9] Mass. Gen. Laws Ann. ch. 21, §§ 26-53 (1972), *as amended*, (Supp. 1974).

[10] *Id.* at § 26A (Supp. 1974).

[11] *Id.* at § 42 (Supp. 1974).

[12] S.C. Code Ann. §§ 63-195 to 63-195.36 (Supp. 1974).

[13] Pa. Stat. Ann. §§ 691.1-760.2 (1964), *as amended*, (Supp. 1974).

[14] S.C. Code Ann. §§ 63-195 to 63-195.36 (Supp. 1974).

[15] *Id.* at § 195.12 (Supp. 1974).

[16] Pa. Stat. Ann. §§ 691.1-760.2 (1964), *as amended*, (Supp. 1974).

[17] Pa. Rules and Regs. Tit. 25, § 102.10-102.61 (1972).

[18] Minn. Stat. Ann. §§ 115.01-115.82, 116.01-116.41 (1964), *as amended*, (Supp. 1974).

[19] *Id.* at § 115.01(15) (Supp. 1974).

SELECTED FEDERAL STATUTES

The following is a discussion of selected Federal laws, identified by a Federal Legal Information Through Electronics (FLITE) search, which might be used to reduce water pollution from nonpoint sources. FLITE is a computerized data bank and retrieval source for Federal law operated by the U.S. Air Force.

AGRICULTURE

Congress has enacted two pesticide acts and two grazing statutes which could have an impact on efforts to limit water pollution from nonpoint sources.

Pesticide use is controlled in only one of the two pesticide acts -- the Federal Environmental Pesticide Control Act of 1972.[1] The other act, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)[2] is intended to control manufacture, sale and transport of pesticides rather than their use. The means of regulation is through registration and labeling requirements. Although restrictions on use provide a more direct and immediate curb on chemical pollution, registration and labeling requirements may also contribute to water quality maintenance. Label warnings must include instructions on the proper method of application, and allow a content check to insure that the product is neither adulterated nor mislabeled.

FIFRA requires that all economic poisons (pesticides) be registered with the Environmental Protection Agency and the Act makes it unlawful to transport or offer for sale any economic poison that is unregistered, adulterated, or misbranded. An economic poison is misbranded if the label fails to include proper directions for use or if, when applied as directed, it may be injurious to man or animals or to vegetation, except weeds, to which it is applied.[3]

Registration is also required under the Federal Environmental Pesticide Control Act of 1972, and under the terms of this act, a pesticide may be approved for registration only if it will not cause unreasonable adverse effects on the environment.

The Act allows restrictions to be placed on the manner of application and the type of equipment needed in order to avoid damaging the environment. The prohibitions found in this Act resemble those in FIFRA and makes it unlawful to deal in or transport pesticides that are unregistered, adulterated or misbranded. Misbranding is defined in both acts to include the failure to give proper instructions for use. The Environmental Pesticide Control Act goes one step further and declares it unlawful to fail to follow these instructions for use when applying pesticides.[4]

Under both acts the Administrator of EPA is given the power and authority to promulgate rules and regulations to carry out the purposes of the acts.[5] Regulations promulgated under the Federal Environmental Pesticide Control Act may pertain to the disposal or storage of pesticide containers and pesticides. Packaging standards are to be set to protect persons from accidental contact, and authority exists to prohibit leakage or spillage into water supplies.

The Environmental Pesticide Act requires that a national monitoring plan be formulated and revised by the Administrator in cooperation with other Federal, state or local agencies, and include soil and water monitoring. Other non-regulatory functions of the EPA include research and experimentation.

The Agency may delegate certain of its enforcement powers to the states, which are also given some enforcement authority. A state may regulate the sale or use of pesticides and devices within its borders provided the regulation does not permit sales or uses prohibited in the Act.[6] A state may also require that pesticides sold in the state meet special local needs as a prerequisite to state registration. Federal labeling requirements apply in all states and the Act specifically excludes state action in the area of labeling requirements. Under both statutes, the Administrator may require that books and records be kept and made available for agency inspection.

One of the dangers of pesticide use is damage to or destruction of plant life. Certain types of economic poisons may act as defoliants or plant desiccants or may retard maturation of plants. Debris, soil erosion, sedimentation and water pollution are potential results of defoliation and loss of vegetation.

Another cause of vegetation loss is the unrestricted grazing of livestock, and the search revealed two Federal statutes which attempt to regulate grazing. The Grazing Land chapter of the Public Lands Title [7] authorizes the Secretary of the Interior to establish grazing districts on vacant, unreserved, unappropriated lands in the United States in an effort to promote the "highest use of public lands."[8] The chapter is composed of one subchapter governing Alaska[9] and another subchapter governing the rest of the United States.[10] Both sets allow the Secretary to lease grazing privileges.[11] In Alaska, the term of a lease may extend to fifty years. Elsewhere the limit is ten years. In either case, there may be an option to renew.

The right to graze in any district is subordinated to the protection and development of the land and its resources.[12] In the Alaska subchapter, use for grazing is subordinated more specifically "to the development of their mineral resources; ...to the protection, development, and utilization of their forest [and water resources,] ... to their use for agriculture; and ... to the protection, development, and utilization of such other resource which may be of greater benefit to the public."[13] All of these legislatively determined higher uses may be promoted in rules and regulations of the Secretary of the Interior.

The Forest Service and Management chapter of the Conservation Title Code has two grazing provisions.[14] Permits for grazing livestock on national forest lands may be obtained from the

Secretary of Agriculture. Permits are limited to a ten-year renewable term and may contain conditions as the Secretary deems proper. In addition, grazing is limited by means of rules and regulations promulgated by the Secretary which relate to use of forest land, seasons of use, grazing capacity and other matters.[15]

Enforcement

To protect the public and the environment from the dangers of pesticides, the two Federal pesticide acts authorize swift agency action against violations of the acts' provisions, or the rules and regulations promulgated by EPA under the acts. Adulterated, unregistered, mislabeled, or misbranded goods may be seized for confiscation in a condemnation proceeding before the District Court.[16] Under the Federal Environmental Pesticide Control Act, seizure is allowed when pesticide use endangers the environment.[17] If a pesticide, economic poison or device is condemned, it is to be disposed of by destruction or sale as directed by a court.

A second administrative remedy available under both acts is cancellation or suspension of registration. Cancellation must be preceded by notice of non-compliance with provisions of the Act, refusal to comply, and a 30-day waiting period during which time the registrant may comply, or object and request a public hearing.[18]

Suspension proceedings, although authorized under both acts, are detailed only in the Environmental Pesticide Control Act. Under the provisions of that Act, if suspension "is necessary to prevent an imminent hazard during the time required for cancellation or change in classification proceedings," the Secretary may immediately order the registration suspended.[19] Except in cases of emergency, notice and opportunity for a hearing must still be granted, but the hearing will be expedited.[20] A final order of cancellation or suspension issued under either act is subject to judicial review (also expedited in the case of suspension).[21] A "stop sale, use, or removal order" is a remedy available under the Environmental

Pesticide Control Act[22] but is not specifically provided for in FIFRA.

The extent of agency enforcement authority under the two grazing statutes is unclear. Although permits or leases are required under both, neither statute expressly authorizes revocation or suspension. However, it is within the express authority of the Secretary of the Interior to refuse to renew a permit issued under the Grazing Lands chapter.[23]

Of the four agriculture-related statutes, only the Federal Environmental Pesticide Control Act provides both civil and criminal fines in addition to administrative remedies.[24]

Private applicators or other persons violating the Act, subsequent to receiving a warning from the Administrator or after already receiving one citation, may be assessed a civil penalty of up to $1000 per offense. Again, if the violation was knowingly committed, the violator is guilty of a misdemeanor, punishable upon conviction by a fine of up to $1000 or up to 30 days in prison or both.

The Federal Insecticide, Fungicide, and Rodenticide Act punish violations criminally. The failure to register an economic poison according to the terms of §135a (a) (1) is a misdemeanor punishable upon conviction by a maximum fine of $1000. Any other violation of the Act is a misdemeanor punishable upon conviction the first time by a maximum fine of $500 and subsequently by a fine of up to $1000 and/or up to one year in prison.[25]

The final penalty provision occurs in the Alaska subchapter of the Grazing Lands chapter. The willful grazing of livestock without a lease or the permission of the Secretary of the Interior subjects the violator, upon conviction, to a fine of not more than $500.[26]

CONSTRUCTION

Four Federal statutes, identified by a FLITE search, require that environmental impact be considered before construction projects are approved for funding, but all of the statutes relate in some way to transportation systems.

The environmental protection section[27] of the Transportation Title declares it to be the national policy that, a special effort is to be made to preserve the natural beauty and historical and cultural assets of the countryside, park lands, and wildlife refuges. As a prerequisite to funding, project applications are to contain an environmental impact statement; an account of adverse environmental effects which might result, especially irretrievable and irreversible effects; and alternatives to the proposed project.

Before the Secretary of Transportation makes a decision on the eligibility of a project for assistance, opportunity must be given for interested persons to present their views on the environmental effects, and "fair consideration [must be] given to the preservation and enhancement of the environment."[28] If an adverse environmental effect is likely to result from the project, approval is to be withheld unless no reasonable and prudent alternative exists and all reasonable steps have been taken to minimize the adverse effects; however, the statute offers no guidelines as to what would constitute a reasonable and prudent alternative or reasonable steps to minimize environmental hazards.

Somewhat more serviceable criteria for judging the acceptability of construction projects are given in another section of the Transportation Title,[29] which provides that Federal water and air quality standards are to be complied with during construction and operation of airport development projects. Under the terms of this particular act if reasonable assurance of compliance is not forthcoming, the Secretary of Transportation may withhold approval of the project application. To insure that the Secretary is adequately informed, the statute requires that he consult with the Secretary of the Interior and the Secretary of Health, Education and Welfare about the environmental impact of the proposal prior to approving or disapproving it, and the act applies to airport development projects

A third statute, the Department of Transportation and Related Agencies Appropriation Act of 1974,[30] applies specifically to airport development in parts of Florida, and provides that no Federal funds may be appropriated unless it has been shown that the airport will have no adverse environmental effect on the ecology of the Everglades. Where the other airport development statute requires approval of the application by the Secretary of Transportation after consultation with the Secretaries of Health, Education and Welfare (HEW) and Interior, this appropriations Act requires actual site approval by the Interior Department as well as the Department of Transportation. Where the former statute requires compliance with specific air and water quality standards, this act generally prohibits adverse effects on the ecology of a specific area -- the Everglades. In this respect it is comparable to the environmental protection provisions of the Transportation Title, yet the Everglades measure is a bit stronger in that there is no provision allowing otherwise unacceptable projects to be approved simply because no alternative exists.

The Federal-Aid Highways Act[31] is administered by the Secretary of Transportation. Specifications and plans for proposed projects on any Federally aided highway system may not be approved unless they are designed and constructed in accordance with standards and guidelines approved by the Secretary in cooperation with state highway departments. In particular, the Secretary is required to issue guidelines for minimizing the soil erosion which can result from highway construction. Final approval of projects must also await consideration of the costs of minimizing water pollution.

A number of these provisions may represent effective means of controlling water pollution from nonpoint sources. Standards may be set which can serve as a basis for judging the acceptability of proposals and promote the protection of the environment once a project is approved. Since cooperation with state officials is required in promulgating guidelines, such guidelines could be responsive to the needs of each state. The Federal-Aid Highways Act expressly addresses the problems of soil erosion and water pollution, conditioning receipt of financial assistance upon approval of erosion and pollution control plans.

These four statutes are concerned solely with project approval, and those projects which fail to meet environmental requirements must be disapproved. None of the statutes regulate post-approval conduct or penalize violations of project plans.

MINING

Federal regulation of mining most frequently occurs when operations are carried out by lease or patent on Federal lands, particularly when on forest lands.

Congress has enacted four statutes in its efforts to reconcile both the need to utilize mineral resources and conserve forest resources, all of which authorize limited mining operations on Federal forest lands to be conducted according to the rules and regulations of the Departments of Agriculture and Interior.

The Wilderness Act[32] creates a national wilderness preservation system composed of Federally owned areas designated as wilderness areas and administered for the enjoyment, use and protection of these areas. Although the use of motorized equipment, construction and other activities are restricted in these areas, mineral leasing may continue through 1983, subject to the rules and regulations of the Department of Agriculture. Prospecting for water resources may also be permitted.

The second mining statute[33] authorizes the Secretary of Agriculture to permit prospecting for, and development of, mineral resources located in the national forests in Minnesota. Again, the operations must be conducted in compliance with regulations and terms prescribed by the Secretary, and receipts derived from permits and leases are to be paid into the Treasury.

Title to mineral deposits in certain other national forests may be conveyed, under the National Forests chapter,[34] to persons holding patents after the enactment of the chapter provisions. Timber may be cut and removed from the mineral lands only if necessary to mining operations and then in accordance with sound forest management practices as required by national forest land rules and regulations.

The Protection of Timber chapter[35] creates mineral districts and authorizes necessary timber cutting during mining operations conducted within the districts, provided sound cutting practices are utilized to protect forest resources and minimize the danger from soil erosion and lessen the potential for water pollution.

While loss of vegetation during mining operations is a major contribution to water pollution from mining as nonpoint source, there are more direct ways in which mining operations threaten water resources. The disturbance of soil by dredging, drilling or excavation contributes substantially to the likelihood of soil erosion, and construction activities may release contaminants to surface waters during the development or operations stage of a mine or well. The most direct mine-related cause of water pollution, however, is acid drainage which may occur at any stage of mining operations, even after abandonment of active mining at the site.

Five of the relevant Federal statutes deal with these direct effects of mineral development. The Saline Water Conversion Act of 1971[36] is primarily planning legislation. The Secretary of the Interior is directed to study methods for the prevention of brine discharge into lakes, streams and other waters, and although saline conversion demonstration projects may be constructed, no substantive action against discharges and no regulation of mining is authorized in the act.

Mining operations are regulated, however, under the provisions of the other four mining laws, the most comprehensive, of which is that creating the California Debris Commission to regulate hydraulic mining in the Sacramento and San Joaquin River System,[37] under the supervision of the Chief of Engineers and under the direction of the Secretary of the Army. "Hydraulic mining directly or indirectly injuring the navigability of [the rivers]. . . is prohibited,"[38] and the Commission is expressly directed to plan for the "protection of [the] navigable rivers by preventing deposits therein of debris resulting from mining operations [and] natural erosion."[39]

A number of other provisions in this act may effectively control mining activities which may become nonpoint sources of water pollution. Hydraulic miners must file petitions or applications to mine, and these petitions must include an agreement to comply with the rules and regulations of the Commission; to surrender to the United States the right to regulate debris; and plans and specifications, including descriptions of dumping grounds. Before a petition can be accepted it must be approved by a majority of the Commission. Upon approval, the Commissioner is to issue an order prescribing the method and manner of mining operations and the safeguards to be used to protect "the public interests and . . . the navigable rivers." If the Commission determines the safeguards such as impounding dams or other restraining works are necessary to protect the rivers, commencement of mining operations must be postponed until work on the safeguards has progressed to a functional stage. Federal standards on debris disposal are rather strict.

The Trans-Alaska Pipeline Authorization Act[40] is another Federal mining law which provides comparably extensive control over potentially polluting activities. A permit or right-of-way must be obtained before oil or gas may be transported. Several of the act's provisions constitute amendments to the Mineral Lands Leasing Act.[41] These amendments authorize the Secretary of the Interior to promulgate rules and regulations for the restoration and re-vegetation of the land; to insure compliance with water quality standards; and to protect the environment. Bonds may be required to secure these and other obligations imposed as terms and conditions of the permit or right-of-way. In general, the responsibilities of the Secretary with respect to regulation of activities which can lead to water pollution seem to be largely supervisory as opposed to the more direct involvement of the California Commission. The Alaska Act provides that "the control and total removal of [any] pollutant" [threatening] "to damage aquatic life or wild life; or public or private property" is the permit holder's responsibility;[42] all expenses incurred as a result of pollution control and abatement procedures must be borne by the permittee. Any administrative expenses incurred by the Federal Government is successful pollution investigation or abatement upon failure of the permittee to do so are also charged to the permit holder.[43] In addition to recovering costs expended, the Department or persons injured by the permit holder may also recover damages.

The last two mining statutes are far less detailed. The first act regulates sand and gravel mining on tidelands, submerged lands or filled lands near Guam, the Virgin Islands or American Samoa.[44] Mining is by permit only, and the Secretary of the Interior has certain authority to place any conditions deemed appropriate on the mining permit. All permits are revocable, although specific grounds for revocation are not indicated in the statute.

Finally, the Geothermal Energy Research, Development, and Demonstration Act of 1974[45] permits the Secretary of the Interior to issue leases for the development and utilization of geothermal steam and other geothermal resources. The exploitation of geothermal resources involves well drilling and operation and represents a serious threat of ground water contamination as well as substantial potential for surface water quality degradation.

This statute authorizes the Secretary to prescribe rules and regulations regarding production and utilization of geothermal steam, water and other resources and protect the quality of the geothermal steam and water as well as the quality of surface and other subsurface waters.

Enforcement

Injunctive relief is not among the remedies expressly provided for in any of the mining and mineral exploitation statutes.

The California Debris Commission chapter has the most extensive enforcement section of all the acts discussed. The Debris Commission has broad authority to enforce its orders, including by implication injunctive relief. Intentional violation of conditions of the mining order which prescribe method and manner of mining operations can result in a forfeiture of the privileges granted in the orders, including the mining privilege itself.

Two distinct criminal offenses are designated in the statute and are punished rather severely. Hydraulic mining so as to injure directly or indirectly the navigable waters of the United States in violation of this act is a misdemeanor. Upon conviction the violator may be fined up to $5000 and/or be imprisoned for up to one year. The second offense is also punishable as a misdemeanor. Persons convicted of the willful or malicious injury or destruction (or attempted injury or destruction) of any dam or restraining work may receive fines of up to $5000 and/or up to five years imprisonment.

The remaining statutes either contain no enforcement provisions or less extensive ones. The Saline Water Conversion Act of 1971[46] is primarily planning legislation and contains no enforcement provisions.

The Wilderness Act, the National Forests chapter and the National Forests in Minnesota provision of the National Forests chapter all require permits or leases to mine or cut timber, yet none of these measures discuss the issue of permit revocation or suspension.

Permits issued for sand and gravel mining in certain Island protectorates are revocable, and although the act itself does not specify grounds for revocation these may include breach of permit terms or conditions.[47]

Right-of-way and permit termination or suspension are also among the remedies available for non-compliance with the Trans-Alaska Pipeline Authorization Act,[48] but the most effective relief offered in this act seems to be the provision of civil liability for damages.[49] With a few exceptions (acts of war, contributory negligence, governmental negligence), strict liability is imposed on permit holders for damage to public or private persons, without regard to fault or onwership of property, subject to a limit for strict liability claims arising out of any one incident of $50,000,000, part of which may be paid from the Trans-Alaska Pipeline Liability Fund created by the act[50] and financed by mandatory contribution of all permit/right-of-way holders. If damage exceeds this limit, the excess liability may be recovered in accordance with ordinary rules or negligence.[51]

A higher ceiling is fixed when damage results during the transport of oil or gas by vessel, where the limit on strict liability for all claims arising out of a single incident is $100,000,000.[52] In either case, claims may be determined by arbitration or judicial proceeding.

Bonds may also be required under the Trans-Alaska Pipeline Authorization Act. If the permit/right-of-way holder fails to control or remove pollutants threatening aquatic life or wildlife or public or private property, the Secretary may do so at the holder's expense, however, no criminal or civil fines are prescribed for any violation of the Act.

The Protection of Timber Chapter criminally punishes violators of its provisions or the rules and regulations promulgated thereunder. These violations are misdemeanors. Upon conviction, the offender may be fined up to $500 and may receive up to six month's imprisonment.

SILVICULTURE

The FLITE search indicates that fourteen Federal statutes have been enacted to promote the use of sustained yield forest management practices on Federal lands or private lands bordering Federal forests. Sustained yield forestry practices contribute to the prevention of soil erosion, sedimentation and water pollution.

National Forests are designated and established by the President and administered by the Secretary of Agriculture. Two chapters of the United States Code are devoted to regulation of these Forests. The National Forest chapter[53] deals primarily with the establishment of National forests, while the Forest Service and Management chapter[54] contains more of the administrative and regulatory details.

Congress has declared the purpose of the national forests to be to improve and protect the forest . . . to secure favorable conditions of water flows and to furnish a continuous supply of timber. . ."[55] The Secretary of Agriculture may take no action which will impair the "productivity of the land."[56] Rather, the duty of the Secretary is to provide for the "intensive multiple use, protection, development and management of these lands under principles of multiple use and sustained yield."[57]

To preserve living and growing timber, the Secretary may sell dead timber for cutting, provided sound forestry practices are used.[58] Merchantable timber may be cut only if the cutting will not detrimentally affect the "purity" of the water supply.[59] Congress has delegated to the Secretary the authority to promulgate rules and regulations to protect the national forests from excessive cutting and other dangers.

To promote timber protection and to regulate the flow of navigable streams, the Secretary is authorized to purchase and maintain, with the approval of the National Forest Reserve Commission, "forested, cutover or denuded lands" within the watersheds of navigable streams.

Cooperation between the Secretary and state and local governments is encouraged in both chapters, and cooperative services may include financial aid and the distribution of planning stock for state and local forests.

There are two relevant forestry management statutes dealing with Federal jurisdiction and authority over forests on Indian lands, and while the Secretary of Agriculture has some responsibility in this area, primary responsibility rests with the Secretary of the Interior. The Indian Reorganization Act[60] directs the Secretary of the Interior to make rules and regulations for the operation and management of Indian forestry units in accordance with sustained yield management principles, with special emphasis on protecting the land from deterioration and erosion. To accomplish this purpose, the Department of the Interior is given broad authority to promulgate rules and regulations and to take other actions as deemed necessary -- including placing restrictions on grazing of livestock in or near Indian Forests.

The Klamath Termination Act[61] has to do with one particular Indian Forest, the Klamath Indian Forest, which, although owned communally by the Klamath Indian Tribe, is subject to some vestiges of Federal authority in the Interior and Agriculture Departments.[62] Persons wishing to withdraw from the tribe have the right to demand that a portion of the forest be sold and the proceeds be paid to the withdrawing parties. The Secretary of the Interior offers the land for sale and sets the terms and conditions of all sales, and the Secretary of Agriculture prescribes the specifications and minimum requirements to be included in invitations to bid. Bid plans must be submitted for approval by the Secretary of Agriculture and must include provisions for the conservation of soil and water resources. In addition, all purchasers are required to manage the forest lands in accordance with sustained yield procedures so as to furnish a continuous supply of timber. Although prevention of water pollution is not an express condition of purchase, it should be an indirect result of soil and water conservation efforts and sustained yield practices. Responsibility for enforcement of all conditions has been delegated to the Secretary of Agriculture, although no specific enforcement powers are enumerated in the statute.

In certain circumstances, the Federal government may exercise authority not only over Indian owned lands but also over other privately owned or operated lands. The purchase of a patent or lease of Federally owned land may result in an extension of the authority of the Departments of Agriculture or Interior to regulate forestry practices thereon. The Alaska Native Claims Settlement Act[63] requires that all patents issued to native Alaskan individuals, groups, or villages under this act, and relating to land located within the boundaries of a national forest, are to contain the conditions necessary to insure sound management. Sustained yield procedures are to be implemented along with management practices designed to protect and enhance environmental quality which are no less stringent than the practices carried out on adjacent national forest lands. The Secretary of the Interior may publish in the Federal Register any rules and regulations necessary to carry out the purpose of the act.

Persons cutting timber from patented or leased lands in a number of national parks and battlegrounds[64] are also subject to the rules and regulations of the Secretary of the Interior.[65]

The use and management of parklands and the sale and cutting of timber are to be regulated by the Secretary in such a way as to prevent soil erosion and produce a sustained yield of forest products.

Under the terms of several other statutes, the Secretary of the Interior may extend his jurisdiction over certain private landowners by means of cooperative agreements. One of these laws[66] places the revested Oregon and California Railroad grant lands and the reconveyed Coos Bay Wagon Road grant lands under the jurisdiction of the Interior Department -- to be managed according to sustained yield methods to achieve permanent forest production. Recognizing that the management of privately owned lands within the grants could have an effect on the management of the grants themselves, Congress authorized the Department of Interior to enter into agreements with the private owners with respect to the time, rate and method of cutting and with respect to sustained yield practices -- all of which may serve to abate water pollution from nonpoint sources.

Some of the land within Federally designated "sustained yield units" is also privately owned. Cooperative agreements between private owners and the Federal agency controlling the unit (either the Department of Interior or the Department of Agriculture) may be executed. The Sustained Yield Forest Management Act[67] empowers both Secretaries to severally establish the units, which consist of Federally owned or administered forest land and private land covered by cooperative agreements. Among the benefits of sustained yield management which the units are created to obtain are a "continuous supply of timber. . . maintenance of water supply regulation of streamflow [and] prevention of soil erosion."[68] In return for a landowner's use of sound forestry practices, the agency may agree to share the cost of such practices. Funds for such programs are to come from monies appropriated for Federal forest protection and management. Rules and regulations necessary to carry out the purposes of the statute may be promulgated for a unit by the Secretary who created it. The abatement of water pollution from silviculture as a nonpoint source should be the almost inevitable result of regulations restricting activities which lead to soil erosion or interfere with stream flow.

Forest practices conducted on land neighboring Federal forests may have an adverse affect on park lands, and Congress has authorized the Secretary of the Interior to enter into agreements, in order to prevent or abate such effects with landowners on the periphery of Redwood National Park.[69] As in the Sustained Yield Forest Management Act, the Secretary may share the costs of procedures designed to protect timber, soil and other resources within the Park.

In certain circumstances, cooperative agreements with adjacent landowners might prove less than adequate to protect the park, so Congress in enacting the Redwood National Park Act[70] extended the scope of authority of the Secretary to include the power to acquire an interest in lands on the periphery of the park if this would assure that management of the lands would not "adversely affect the . . . park." This is similar to the power granted the Secretary of Agriculture in the National Forests chapter to purchase land necessary for the protection of watershed areas.[71]

The Federal statute[72] governing Sleeping Bear Dunes National Lakeshore directs the Secretary of the Interior to implement a land and water use plan that would protect the natural resources of the lakeshore area, and provide assistance to neighboring towns and counties wishing to establish appropriate land use regulations. In this act, acquisition of neighboring lands -- through condemnation -- is not a remedy available to the Secretary "so long as . . . use of improved property is in compliance with [zoning bylaws or standards for land use]."[73]

The Secretary of Agriculture is responsible for the administration, protection and development of the Oregon Dunes National Recreation Area.[74] To promote the sound management and use of area lands and waters, the statute creates an inland buffer zone, within which forest practices may be regulated. Timberland located within the zone is to be managed according to sustained yield practices comparable to the standards of practices imposed by the Secretary on national forest land. As long as these standards and practices are complied with, privately owned timberland may not be acquired by the Secretary without the consent of the property owner.[75]

An inland buffer zone was also established at Pictured Rocks National Lakeshore in Michigan to stabilize and protect the character and uses of the lands and waters within the zone.[76] The intent of Congress in providing for that zone was to contribute to the preservation of the shoreline and lakes and the protection of watersheds and streams while at the same time allowing the fullest economic utilization of renewable resources through sustained yield timber management and other resource management techniques. As in the case of the Sleeping Bear Dunes National Lakeshore Statute, the Secretary of the Interior administers this act and is authorized to assist counties and towns in establishing appropriate land use regulations. Land already being used for growing and harvesting timber under a scientific program of selective cutting and forest management may not be acquired for the buffer zone by the Secretary through condemnation.

The final silviculture statutes concern mining operations and their effect on forest resources. Mineral districts are designated and regulated under several sections of the Protection of Timber chapter of the Code.[77] Recognizing the scarcity of timber in such districts, and in an effort to promote mining and homesteading, Congress has authorized the waiver of certain prohibitions against timber cutting in the areas.[78] Subject to the rules and regulations of the Secretary of the Interior for the protection of timber, the cutting of timber on mineral lands in a mineral district, by residents of the state in which the district is located, is permitted -- provided the land is used for domestic or mining purposes.[79] Permits to cut may also be granted to corporations, other than railroads, incorporated in the particular state involved.[80] Inspections of operations may be made by an officer designated by the Secretary to insure compliance with timber protection rules and regulations. Such rules and regulations could be an effective means of protecting water quality from mining and construction activities as well as unsound silviculture practices.

The National Forests chapter[81] permits timber cutting in certain national forests if necessary to mining operations there, provided the person involved holds a patent issued under mining laws. Any cutting must be conducted in accordance with sound principles of forest management as in required by national forest land rules and regulations.

Enforcement

None of the statutes discussed under the general designation, silviculture, provide the injunctive relief to restrain violations. Agency action is the primary enforcement method afforded.

Bonds may be required as a condition precedent to cutting timber in certain national forests and national parks, and failure to comply with rules and regulations concerning cutting and debris disposal practices may result in bond forfeiture.

Three statutes contain provisions regarding condemnation of timberland in or bordering national forests. The Sleeping Bear Dunes National Lakeshore Act authorizes the Secretary of Interior to condemn property that does not conform to zoning bylaws or standards.

The Oregon Dunes National Recreation Area Act and the Pictured Rock National Lakeshore Act prohibit condemnation if sustained yield practices are being carried out, implying that condemnation is an appropriate action when such practices are not being conducted. Fines of up to $500 and/ or up to six months imprisonment for violations of forest laws, rules or regulations are provided in three sections of the Code. The Forest Service and Management chapter[82] contains a provision prescribing such penalties for violations of certain provisions of the National Forests chapter or rules and regulations promulgated thereunder (including the section on cutting of timber).[83]

The statute establishing mineral districts[84] designates as misdemeanors any violation of the timber cutting provisions or the rules and regulations issued thereunder. Violators are punished upon conviction by fines and/or imprisonment.[85]

The same penalty is prescribed in the National Parks chapter for violations of rules and regulations of the Secretary of the Interior regarding the use and management of national parks and battlegrounds or the sale and cutting of timber.[86]

SOIL EROSION AND SEDIMENTATION CONTROL

The FLITE search identified eight statutes enacted by Congress which seek to prevent soil erosion and sedimentation by encouraging agricultural producers to practice soil and water conservation techniques. Incentives vary from government cost sharing to loans and tax relief.

Five of the statutes grant contractual authority to the Secretary of Agriculture to enter into agreements for a term of years with agricultural producers whereby in return for Federal financial assistance, producers would take preventive measures pertaining to soil erosion and minimize water pollution from agricultural activities.[87] Each of these statutes condition payment on the producer's conformity with certain soil conserving farm practices either promulgated or approved by the Secretary, and each statute allows the Secretary to promulgate the regulations necessary to implement its provisions.

Under the Soil Conservation and Domestic Allotment Act, the payment of benefits may not only be conditioned on conformity with practices approved by the Secretary, but also on conformity with state and local laws restricting land use and preventing soil erosion. The Secretary may even require that the producer enter into agreements determining the permanent use of the land.

The act has as its purpose "diminution of exploitation and wasteful and unscientific use of national resources. . . the protection of rivers and harbors . . . [and the] prevention and abatement of agricultural-related pollution."[88] To promote these purposes, aid may be given not only to agricultural producers but also to other agencies and local governments in return for their treatment or use of land for soil conservation. On Federal lands, soil conservation and other measures such as engineering operations, methods of cultivation, the growing of vegetation, and changes in the use of the land are to be conducted by the Secretary. To fund the conservation efforts, the act authorized annual appropriations of up to $500 million.

The Rural Environmental Conservation Program was enacted to grant contractual and purchasing authority to the Secretary of Agriculture to "carry out the purposes of the [Soil Conservation and Domestic Allotment Act] and to preserve, restore, and improve the wetlands of the nation." The Secretary of Agriculture may enter into agreements with landowners and operators providing for a grant of Federal funds or other assistance in return for conformity with practices prescribed by the Secretary.

Under the Soil Conservation and Domestic Allotment Act aid could be further conditioned on conformity with state and local land use and erosion prevention laws. Under the Rural Environmental Conservation Program, farming and land use plans approved by the Secretary form the basis for all contracts, and the land use plans, all applicable environmental regulations, and any conditions included in the contract must be complied with as a prerequisite to assistance.

Both acts place certain restrictions on the scope of the Secretary's contractual authority. The Soil Conservation and

Domestic Allotment Act prohibits the Secretary from entering into contracts in the Great Plains Area unless erosion is so serious as to make the contract necessary to protect ranches and farms. Contracts in North Dakota, South Dakota and Minnesota may not provide assistance for wetlands drainage if the Secretary of the Interior feels that wildlife preservation will be materially harmed. The act creating the Rural Environmental Conservation Program requires that all wetlands contracts include a provision forbidding the destruction of the wetlands character of an area.

Soil conservation is an important environmental concern. In watershed areas, it is critical. Runoff and erosion cannot only lead to water pollution but can also result in local flooding. The Watershed Protection and Flood Prevention Act[89] was enacted for the purpose of "preventing [erosion, floodwater, and sediment damages in watersheds], furthering the conservation, development, utilization, and disposal of water, and the conservation and utilization of land . . . ." The Secretary of Agriculture may enter into cooperative agreements with local organizations, landowners, or land operators whereby, in return for changes in cropping systems and land use and for the implementation of soil and water conservation practices, the Secretary is authorized to share the cost of such measures with the contracting party.

The Croplands Adjustment Act[90] was an early grant of contractual authority to the Secretary. Although the act is no longer in force, some of the agreements made under the act may still be.

The final statute authorizing cost sharing agreements to promote soil conservation is the Appalachian Regional Development Act of 1965,[91] under which ten-year cooperative agreements may be undertaken "to provide for the control and prevention of erosion and sediment damages. . . and to promote the conservation and development of the soil and water resources of the region." This act, like the others, calls for direct Federal assistance to landowners who comply with the terms of the agreements, some of which are prescribed by the act, such as those which obligate the landowner to provide "land stabilization, erosion and sediment control, and reclamation through changes in land use, and . . . measures for the conservation and development of soil, water [and] woodlands . . ."[92] Rules and regulations necessary to carry out the provisions of the act may be promulgated by the Secretary of Agriculture.[93] Up to $19 million may be appropriated every two years to allow the Secretary to administer the cost sharing program.

The Appalachian Regional Development Act and the act creating the Rural Environmental Conservation Program both stress the contribution that sound forestry practices make to soil conservation and control of erosion. Financial and technical assistance to landowners engaged in forest conservation and management practices is available under both statutes.

The Appalachian Act also provides that financial assistance of up to $30 million could be appropriated from the Secretary of the Interior to states in the region for use in filling and sealing abandoned mines and wells and for rehabilitating mined lands.[94] Further, funds up to $2 million -- may be appropriated to allow the Secretary of the Army to prepare a plan for the prevention of water pollution by mining -- a nonpoint source.[95] A plan by the Appalachian Regional Commission for the control and elimination of pollution from acid mine drainage may also be funded under the terms of the Act.

Direct grants of Federal funds may be made under the terms of one other soil conservation measure, the Agricultural Credit Chapter;[96] however, no contractural agreement with agricultural producers is involved. Public and quasi-public agencies wishing to establish soil conservation practices and develop drainage and waste disposal facilities may apply to the Secretary of Agriculture for grants. Distribution of funds under this statute is conditioned on the certification by the state water pollution control agency that contaminant levels in excess of state standards will not result from proposed facilities or practices. As an alternative to a direct grant, agencies may request loans for the purposes mentioned above, and individuals also may be eligible for loans under the chapter. As an incentive, the loan may be somewhat less attractive than a direct grant of funds; nevertheless, it is still a useful tool in encouraging soil conservation practices. The Agricultural Credit chapter permits the Secretary of Agriculture to offer loans to farm owners or farm tenants who agree to develop, conserve and properly use their land and water resources.[97]

The Bankhead-Jones Farm Tenant Act[98] resembles certain provisions of the Agricultural Credit Statute in that it allows loans to be made to Federal, state and local organizations and agencies to assit them in executing plans for the conservation of soil and water resources. However, among the other projects for which loans may be granted are two which are directly related to control of water pollution from nonpoint sources. Loans may be used "for installing measures and facilities for water quality management [and] for the control and abatement of agriculture-related pollution."[99] Although the statute calls for loan contracts with thirty year terms, the Secretary may set any other conditions of the contract.

The final type of incentive used to encourage soil and water conservation is the income tax deduction. The Soil and Water Conservation Expenditures provision of the Internal Revenue Code[100] allows taxpayers engaged in the business of farming to take an income tax deduction for expenditures incurred for soil and water conservation measures. The deduction for any one year may not exceed 25% of the gross income from farming. Among the measures for which expenditures are deductible are leveling, grading, terracing, contour furrowing, drainage ditch construction, and planting of windbreaks.

Enforcement

All of the statutes authorizing direct assistance or cost sharing by the Secretary also authorize the Secretary to terminate payments by mutual consent in the public interest. All but the Croplands Adjustments statute also authorize unilateral termination by the Secretary in the public interest. A lien or mortgage may be required to secure a loan under either the Agricultural Credit chapter or the Bankhead-Jones Farm Tenant Act.

Whether financial assistance is rendered in the form of grants or loans, a contract or agreement would likely precede payment, and conventional remedies for breach of contract including equitable remedies such as specific performance, seem to be available, even though not expressly granted in any of the statutes. The contract might provide for particular remedies in the event of breach, since only the Agricultural Credit statute fails to authorize the Secretary to set the terms and conditions of contracts and agreements.

Criminal penalties in one fo the incentive measures, the Bankhead-Jones Act, punishes violations of rules and regulations by fines of up to $500 and/or imprisonment for up to six months. Fines are imposed after conviction in a U.S. Commissioner's Court (as provided in 18 U.S.C.A. §3401 (b) to (e). Violations of the income tax deduction provisions are punishable under the Internal Revenue Code.[101]

COASTAL ZONE MANAGEMENT

Just as protection of watersheds near rivers and streams can reduce the potential for pollution of those waters, so the proper management of the coastal zone can reduce contamination of coastal waters.

The Coastal Zone Management Act of 1972[102] authorizes the Secretary of Commerce to make annual grants to any coastal state to assist in the development and execution of a management program for the land and water resources of the coastal zone. As defined in the act, the coastal zone includes coastal waters and adjacent shoreland.

Like the Soil Conservation and Domestic Allotment Act,[103] the Coastal Zone Management Act conditions the extension of benefits to the state on the existence of certain provisions in the management program and of certain authority in the state to carry out the program. Specifically, the program itself must make provision for the designation of certain areas "for the purpose of preserving or restoring them for their conservation, recreational, ecological or esthetic values." The state must have the authority "to administer land and water use regulations, control development in order to ensure compliance with the management program, and to resolve conflicts among competing uses . . ."[104] There must also be provision for state or local government administration of land and water use regulations and designation of certain areas to be permanently used for preserving and restoring conservational resources. The statute prescribes three methods for the control of land and water use in the coastal zones, one or more of which must be a part of the state programs receiving Federal aids:

(1) state establishment of criteria and standards of management for local implementation;

(2) direct state land and water use planning and regulation; and/or

(3) state administrative review of all state or local plans, projects, or regulations for consistency with the coastal zone management program.[105]

Under this statute, states are authorized to "control land and water use" within their boundaries. However, each state must comply with the rules and regulations promulgated by the Secretary of Commerce[106] when developing individual coastal zone management plans. The state plans must also comply with the provisions of the Federal Water Pollution Control Act[107] and the Clean Air Act.[108] Failure to incorporate these minimum Federal standards will result in withholding of Federal funds.[109]

But within these guidelines, as far as the Federal Government is concerned, states may control, direct, supervise and enforce laws relating to land and water use in the coastal zone.

States which fail to meet the statutory prerequisites to funding may be denied Federal assistance. After grants have been made, states must file progress reports with the Secretary and maintain records and files for Department of Commerce inspection.

FLOOD PLAIN REGULATION AND FLOOD PREVENTION

Soil erosion and flooding are two phenomena closely intertwined. Flooding may be a direct result of erosion, while conversely, one of the effects of the inundation of any land by flood waters is soil erosion on a large scale. Congress has enacted three measures which may lead to significant efforts to abate the water pollution which can be attributed to flooding.

The Flood Disaster Protection Act of 1973,[110] while primarily providing for flood insurance, also encourages flood prevention measures. The purpose clause of the act enables the Federal Government, through rules and regulations issued by the Secretary of Housing and Urban Development to require that states and localities receiving Federal reconstruction funds for flood damage adopt adequate "flood plain ordinances."[111]

Two other flood prevention measures concentrate on maintaining watershed areas. The Flood Control Act[112] divides control responsibilities between the Department of the Army and the Department of Agriculture. Plans, investigations and improvements for flood control and allied purposes are to be developed and implemented by the Department of the Army, upon approval by Congress.[113] Improvement of watersheds and measures for the retardation of runoff, waterflow and soil erosion on watersheds are to be carried out by the Department of Agriculture.[114] Emergency measures for runoff retardation and soil erosion prevention may be taken by the Secretary of Agriculture when a "sudden impairment" of the watershed - caused by fire, flood, or other natural element occurs.

Before the Department of the Army may begin to construct flood control works on non-Federal land, however, assurances must be received from the state or the local political subdivision involved that they will provide without cost all lands, easements and rights of way necessary for the project and will maintain and operate the works after completion.

As a condition to the extension of any benefits by the Secretary of Agriculture with respect to "runoff retardation" or soil erosion, the Secretary may require (1) the enactment and enforcement of state and local laws restricting land use and otherwise preventing runoff and soil erosion; (2) agreements as to the permanent use of such land; and (3) contributions to any operations conferring such benefits.

The Watershed Protection and Flood Prevention Act[115] resembles the Flood Control statute in that Federal assistance may be extended to individuals and groups who protect the watershed. The Secretary of Agriculture may enter into agreements providing direct financial assistance to local organizations and individual land owners or operators who agree to practice soil and water conservation -- including if necessary, changes in cropping systems and land use in watershed areas. The Watershed Protection and Flood Prevention Act allows the Secretary of Agriculture to terminate the cooperative agreements and payments thereunder if such action would be in the public interest.[116]

The Flood Disaster Prevention Act of 1973 and the Flood Control Act both condition receipt of Federal funds on the taking of certain flood prevention measures. Failure to comply with these conditions may result in a denial of funds.[117] No other penalty provisions are included in any of the statutes.

WETLANDS PROTECTION

Two Federal statutes primarily concerned with soil erosion contain provisions for the protection of wetlands. The Soil Conservation and Domestic Allotment Act[118] prohibits the Secretary of Agriculture from sharing the costs of wetland drainage in North or South Dakota or Minnesota unless the Interior Department finds that wildlife preservation will not be materially harmed, and the act creating the Rural Environmental Conservation Program[119] requires that all conservation contracts between the Secretary of Agriculture and eligible owners and operators of land include a provision forbidding the destruction of the character of an area as wetland.

These measures have a somewhat tenuous connection with nonpoint source pollution, but a more direct relationship between wetlands protection and control of water pollution from nonpoint sources exists in one Federal statute, the Water Bank Program for Wetlands Preservation Act,[120] which was enacted to "reduce runoff, soil and wind erosion ... [and] to contibute to improved water quality and reduce stream sedimentation" thereby preserving, restoring and improving the wetlands,[121] and under which, the Secretary of Agriculture is directed to formulate and carry out a program to conserve and improve the wetlands in accordance with these purposes. The program may include cooperative agreements with landowners whereby the Secretary would share the costs of the landowner's wetlands conservation measures. In carrying out the program the Secretary may promulgate necessary rules and regulations and must coordinate the program with wetland programs administered by the Department of Interior.[122] Cooperation with other local, state, of Federal agencies and committees of farmers established under the Soil Conservation and Domestic Allotment Act[123] is encouraged.

The Water Bank Program for Wetlands Preservation Act allows the Secretary of Agriculture to terminate assistance payments for violations of the agreement.[124] The wetlands provisions of the Soil Conservation and Domestic Allotment Act and of the Rural Environmental Conservation Program allow termination of contracts "in the public interest."[125]

Although not expressly authorized in any of the wetlands acts, conventional remedies for breach of contract including equitable remedies such as specific performance might be available to the appropriate agency.

SPECIAL POLLUTION CONTROLS

According to the FLITE search, three Federal laws[126] provide controls over nonpoint source water pollution in limited geographical areas. Congress consented to the Arkansas River Basin Compact between Arkansas and Oklahoma in 1973.[127] The Compact obligates the states, *inter alia*, to "cooperate ... to investigate and abate sources of alleged interstate pollution within the Arkansas River Basin,"[128] and establishes a commission to administer the agreement and to collect, analyze and report on data as to water quality. The Compact, however, gives no details as to the methods of elimination and abatement contemplated or the kind of pollution endangering the River Basin.

The National Parks Chapter[129] contains a number of provisions aimed at the protection and conservation of renewable and nonrenewable resources. The Secretary of the Interior is directed to adopt and implement a land and water use management plan for certain designated national parks which would provide for proper utilization and preservation of resources for recreational, scenic, scientific, and historic purposes. The abatement of water pollution from nonpoint sources would seem to be within the power of the Secretary of the

Interior to manage the use of forest, mineral and other resources.

In exercising jurisdiction over the King Range National Conservation Area, the Secretary of the Interior has been directed by Congress[130] to promote soil and water conservation and abate water pollution caused by mining operations. Suggestions[131] as to the type of activities in which the Secretary may engage to accomplish these goals are included in the measure. In all conservation and pollution abatement ventures, the Secretary is authorized to seek the cooperation of the California state and local governments and nonprofit agencies.

With respect to mining operations, the Secretary is given broad statutory authority to issue reasonable regulations to carry out the purposes of the subchapter. However, all regulations must provide for such measures as may be necessary among others, "to protect the scenic and esthetic values of the Area against undo impairment, and to assure against pollution of the streams and waters within the Area."[132]

All three of these special pollution control measures are examples of enabling legislation, by which authority is delegated to Federal agencies or states to abate water pollution. The statutes do not themselves regulate, prohibit or penalize any specific activities which can lead to water pollution; consequently there are no enforcement provisions in these particular measures.

FOOTNOTES

SELECTED FEDERAL STATUTES

[1] 7 U.S.C.A. §§ 136-136y (Supp. 1974).

[2] 7 U.S.C.A. §§ 135-135k (1964), as amended, (Supp. 1974).

[3] 7 U.S.C.A. § 135(z)(2)(g)(h) (1964), as amended, (Supp. 1974).

[4] 7 U.S.C.A. § 136j(a)(2)(G).

[5] 7 U.S.C.A. § 135d (1964), § 136w (Supp. 1974).

[6] 7 U.S.C.A. § 136v (Supp. 1974).

[7] 43 U.S.C.A. §§ 315-316o (1974), as amended, (Supp. 1974).

[8] 43 U.S.C.A. § 315 (1964).

[9] 43 U.S.C.A. § 316 *et seq*. (Supp. 1974).

[10] 43 U.S.C.A. § 315 *et seq*. (1964), as amended, (Supp. 1974).

[11] 43 U.S.C.A. §§ 315m to 315m-4 (1964); 43 U.S.C.A. § 316b (Supp. 1974).

[12] 43 U.S.C.A. § 315a (1964), § 316b (Supp. 1974).

[13] 43 U.S.C.A. § 316 (Supp. 1974).

[14] 16 U.S.C.A. § 580k, 5801 (1974).

[15] 16 U.S.C.A. § 580k(c)(2) (1974).

[16] 7 U.S.C.A. §§ 135g(a), 136k(b) (Supp. 1974).

[17] 7 U.S.C.A. § 136k(b)(3) (Supp. 1974).

[18] 7 U.S.C.A. §§ 135b, 136d (Supp. 1974).

[19] 7 U.S.C.A. § 136d(c)(1) (Supp. 1974).

See also the Administrative Procedure Act § 558 (Cum. Supp. 1974).

[20] 7 U.S.C.A. §§ 136d(c)(2), (3) (Supp. 1974). *See also* the Administrative Procedure Act § 558.

[21] 7 U.S.C.A. §§ 135b(d), 136d (c)(4)(Supp. 1974).

[22] 7 U.S.C.A. § 136k (Supp. 1974).

[23] 43 U.S.C.A. § 315b (1964).

[24] 7 U.S.C.A. § 1361(a), (b) (Supp. 1974).

[25] 7 U.S.C.A. § 135f (1964), *as amended*, (Supp. 1974).

[26] 43 U.S.C.A. § 316k (Supp. 1974).

[27] 49 U.S.C.A. § 1610 (Supp. 1974).

[28] 49 U.S.C.A. § 1610(c) (Supp. 1974).

[29] 49 U.S.C.A. § 1716 (Supp. 1974).

[30] P.L. 93-98, 87 Stat. 329, August 16, 1973.

[31] U.S.C.A. § 101 *et seq*. (1966), *as amended*, (Supp. 1974).

[32] 16 U.S.C.A. § 1131-1133 (1974).

[33] 16 U.S.C.A. § 508b (1974).

[34] 16 U.S.C.A. § 482a, 482c, 482h-2. 482k, 482n-1, 482p (1974).

[35] 16 U.S.C.A. §§ 604, 606, 607 (1974).

[36] 42 U.S.C.A. §§ 1959-1959h (1974).

[37] 33 U.S.C.A. §§ 661-687 (1970).

[38] 33 U.S.C.A. § 663 (1970).

[39] 33 U.S.C.A. § 665 (1970).

[40] 43 U.S.C.A. §§ 1651-1655 (Supp. 1974).

[41] 30 U.S.C.A. § 185 (Supp. 1974).

[42] 43 U.S.C.A. § 1653(b) (Supp. 1974).

[43] 43 U.S.C.A. § 1653(a) (Supp. 1974).

[44] 48 U.S.C.A. § 1702 (Supp. 1974).

[45] 30 U.S.C.A. § 1023 (Supp. 1974).

[46] 42 U.S.C.A. §§ 1959-1959h (1974).

[47] 48 U.S.C.A. § 1702 (Supp. 1974).

[48] 43 U.S.C.A. § 1652(c).

[49] 43 U.S.C.A. § 1653 (Supp. 1974).

[50] 43 U.S.C.A. § 1653(a)(2).

[51] *Id*.

[52] 43 U.S.C.A. § 1653c(3).

[53] 16 U.S.C.A. § 471 *et seq*. (1974), *as amended*, (Supp. 1974).

[54] 16 U.S.C.A. § 551 *et seq*. (1974), *as amended*, (Supp. 1974).

[55] 16 U.S.C.A. § 475 (1974).

[56] 16 U.S.C.A. § 531 (1974).

[57] 16 U.S.C.A. § 532 (1974).

[58] A further condition is placed on cutting timber in the Rougue River National Forest.

[59] 16 U.S.C.A. § 487a (1974).

[60] 25 U.S.C.A. § 466 (1963).

[61] 25 U.S.C.A. § 564 to 564w-1 (1963).

[62] 25 U.S.C.A. § 564w-1 (1963).

[63] 43 U.S.C.A. § 1621 (Supp. 1974).

[64] The parks and battlefields covered by this chapter are too numerous to include at this point, and each is the subject of its own code section. The Code should be consulted to determine which parks and battlefields are included and the extent of authority granted under each.

[65] 16 U.S.C.A. §§ 3, 53, 167, 195, 203, 425b, 430f, 430h, 430l, 430q (1974).

[66] 43 U.S.C.A. § 1181a-1181b (1964).

[67] 16 U.S.C.A. §§ 583-583i (1974).

[68] 16 U.S.C.A. § 583 (1974).

[69] 16 U.S.C. § 79c (1974).

[70] *Id*.

[71] 16 U.S.C.A. § 515 (1974).

[72] 16 U.S.C.A. § 460x to 460x-14 (1974).

[73] 16 U.S.C.A. § 460x-8(b) (1974).

[74] 16 U.S.C.A. § 460z-1, 460z-2, 460z-5 (1974).

[75] 16 U.S.C.A. § 460z-5 (1974).

[76] 16 U.S.C.A. §§ 460s-8 to 460s-11 (1974).

[77] 16 U.S.C.A. § 593 _et seq_. (1974).

[78] 16 U.S.C.A. §§ 604, 606, 607 (1974).

[79] 16 U.S.C.A. § 604 (1974).

[80] _Id_.

[81] 16 U.S.C.A. § 482a, 482c, 482h-2, 482k, 482n-1, 482p (1974).

[82] 16 U.S.C.A. § 551 (1974).

[83] Persons charged with violations of the rules and regulations may be tried and sentenced by any U.S. magistrate specially designated for that purpose by the court by which he or she was appointed. Proceedings before the magistrate are to be conducted in the same manner and subject to the same conditions as provided for in § 3401(b) to (e) of Title 18, Crimes and Criminal Procedure.

[84] 16 U.S.C.A. §§ 604, 606, 607 (1974).

[85] 16 U.S.C.A. § 606 (1974).

[86] 16 U.S.C.A. § 3 (1974).

[87] Soil Conservation and Domestic Allotment Act, 16 U.S.C.A. §§ 590a to 590q-2 (1974); Rural Environmental Conservation Program Act, 16 U.S.C.A. §§ 1501-1510 (1974); Watershed Protection and Flood Prevention Act, 16 U.S.C.A. §§ 1001-1004 (1974); Croplands Adjustment Act, 7 U.S.C.A. § 1838 (1973); Appalachian Regional Development Act of 1965, 40 U.S.C.A. App. §§ 203-206, 302 (1969), _as amended_, (Supp. 1974).

[88] 16 U.S.C.A. § 590g (1974).

[89] 16 U.S.C.A. § 1001 (1974).

[90] This Act ceases to be in effect on July 1, 1975.

[91] 40 U.S.C.A. App. § 203 (1969).

[92] _Id_.

[93] _Id_.

[94] 40 U.S.C.A. App. § 205 (1969).

[95] 40 U.S.C.A. App. § 206 (1969).

[96] 7 U.S.C.A. §§ 1921-1926 (1973).

[97] 7 U.S.C.A. § 1923 (1973).

[98] 7 U.S.C.A. §§ 1010-1013a (1964), _as amended_, (Supp. 1974).

[99] 7 U.S.C.A. § 1011(e)(2) (Supp. 1974).

[100] 26 U.S.C.A. § 175 (1967), as amended, (Supp. 1974).

[101] 26 U.S.C.A. §§ 7231 et seq. (1967), as amended, (Supp. 1974).

[102] 6 U.S.C.A. §§ 1451-1464 (1974).

[103] 16 U.S.C.A. §§ 590a-590q-2 (1974).

[104] 16 U.S.C.A. §§ 1455(c)(9), 1455(d)(1) (1974).

[105] 16 U.S.C.A. § 1455(e)(1) (1974).

[106] 16 U.S.C.A. § 1455(c)(1) (1974).

[107] 33 U.S.C.A. §§ 1251 et seq. (Supp. 1974).

[108] 42 U.S.C.A. §§ 1857 et seq. (1969), as amended, (Supp. 1974).

[109] 16 U.S.C.A. § 1456f (1974).

[110] 42 U.S.C.A. §§ 4001-4003 (1973), as amended, (Supp. 1974).

[111] 42 U.S.C.A. § 4002(b) (Supp. 1974).

[112] 33 U.S.C.A. §§ 701-701u (1970), as amended, (Supp. 1974).

[113] 33 U.S.C.A. §§ 701-1(a), 701b (1970).

[114] 33 U.S.C.A. § 701b-1 (1970).

[115] 16 U.S.C.A. §§ 1001-1004 (1974).

[116] 16 U.S.C.A. § 1003(6) (1974).

[117] 16 U.S.C.A. § 4002(b) (Supp. 1974); 42 U.S.C.A. § 701c (1970).

[118] 16 U.S.C.A. §§ 590a-590q-2 (1974).

[119] 16 U.S.C.A. §§ 1501-1510 (1974), Title X of the Agriculture and Consumer Protection Act of 1973.

[120] 16 U.S.C.A. §§ 1301-1311 (1974).

[121] 16 U.S.C.A. § 1301 (1974).

[122] 16 U.S.C.A. § 1309 (1974).

[123] 16 U.S.C.A. § 590h(b) (1974).

[124] 16 U.S.C.A. § 1306 (1974).

[125] 16 U.S.C.A. §§ 590h(b), 1503c (1974).

[126] Arkansas River Basin Compact, P.L. 93-152, 87 Stat. 569, Nov. 13, 1973; National Parks Chapter, 16 U.S.C.A. §§ 460o-4, 460q-3, 460s-5, 460w-5, 460x-5 (1974); King Range Conservation Area Act, 16 U.S.C.A. §§ 460Y-4 to 460y-5 (1974).

[127] P.L. 93-152, 87 Stat. 569 (Nov. 13, 1973).

[128] Id.

[129] 16 U.S.C.A. §§ 460o-4, 460q-3, 460s-5, 460w-6, 460x-5 (1974).

[130] 16 U.S.C.A. §§ 460y-4 to 460y-5 (1974).

[131] 16 U.S.C.A. § 460y-4(7) (1974).

[132] 16 U.S.C.A. § 460y-5(a).

AGRICULTURE

Almost one billion acres or one-third of the available land area of the United States is committed to some kind of agricultural activity. Agricultural uses of water include irrigation which accounts for more than 35% of the water consumed in the United States each day; this figure becomes even more significant when the geographic distribution of the use is considered. Irrigation is limited primarily to seventeen western states where more than 86% of the irrigated land in the country is located.

Recent agricultural development in the United States has been characterized by rapid development of modern technology including widespread use of synthetic fertilizers, chemical pesticides, complex irrigation systems and confined animal feeding areas. These activities release substantial quantities of contaminants including sediment, salts, nutrients, pesticides, organic materials, and pathogens to the surface waters and groundwater systems of the country. A Soil Conservation Survey study in 1971, estimated that cropland is responsible for approximately 50% of the total sediment contaminating inland waterways in the United States. Approximately 25% of that sediment eventually reaches the oceans carrying with it significant quantities of plant nutrients, pesticides, organic and inorganic materials, pathogens, and other contaminants.

Contaminants from agricultural activities reach surface waters by runoff, and enter underground water systems through infiltration and percolation. Atmospheric processes such as fallout, washout and other precipitation processes permit contaminants to reach surface waters and groundwater systems far removed from the original source. Contaminants may be dissolved in water and transported with water or water vapor, and they also may be absorbed and transported with sediment. Although runoff from agricultural activities is a major transport mode by which contaminants can reach surface waters, subsurface drainage also represents a significant contaminant transport system. Groundwater contamination from a large number of point sources, or as a result of infiltration over a wide area, must be recognized as a serious threat to public health, safety, and welfare, although it was not a part of this study.

Irrigation represents a significant mechanism for the transport of contaminants from agricultural activities since the irrigation process involves leaching and transport of dissolved minerals from the soil. Although more than half of the water used in irrigation re-enters the atmospheric phase of the hydrologic cycle as a result of evapotranspiration from plants, the remainder is immediately returned by runoff to surface waters, and through infiltration or percolation to groundwater storage. These return flows carry large amounts of contaminants and can substantially degrade the quality of the receiving waters. Many synthetic chemical pesticides and other toxic materials can enter the atmospheric cycle of the biosphere as a result of physiochemical processes such as codistillation with water or during evapotranspiration.

When contaminants are transported in the aqueous phase of the hydrologic cycle, the extent of contamination can be predicted from hydrologic analysis of the water transport systems connecting the source to the receiving body of water. However, when contaminants are transported as sediment or adsorbed upon sediment, other factors must be considered although hydrologic analysis can still assist in predicting the extent receiving waters may be contaminated. When several sources of contamination are combined or when the source of contamination is widely distributed throughout a watershed, the overall effect of the interactions among multiple sources or the effect of a diffuse nonpoint source on a particular receiving body of surface water or groundwater system can be very complex and may not be predictable in a quantitative sense.

Nutrient transport systems have been investigated in a number of areas, but sufficient information is not yet available to completely describe the transport system from a number of point sources or from a diffuse nonpoint source to a particular receiving body of water.

Wind is a significant agent of erosion in some areas and may assist in the detachment, transport and deposition of sediment and the contaminants adsorbed upon sediment. Wind erosion leads to effects both local and remote from the site of initial action depending upon meteorological and climatic conditions. The characteristics of the soil and soil surface affect the degree of wind erosion. Soil erodability is primarily determined by soil moisture, soil texture, soil structures and stability.

One of the most significant problems in the legal control of water pollution from agricultural activities as a nonpoint source is that there is as yet no accurate scientific way of determining the precise extent of the contribution of particular agricultural activities in a watershed to the overall contamination of the surface waters and groundwater system dependent upon that watershed. In order to make such a determination a formal input-output inventory of contaminants at the boundaries of each source would have to be made and the reaction rates of each contaminant transport process determined. If water pollution from agricultural activities is to be controlled, agricultural practices which permit soil erosion must be regulated.

Agricultural activities have been divided into four general categories for purposes of our discussion. The first section is concerned with soil erosion in general and included in this section are state statutes controlling grazing. The second and third sections discuss state laws dealing with economic poisons, pesticides, and herbicides; the first deals with the actual toxicants used for pest control, and the second with controls on the application of such substances. The final section considers fertilizers and agricultural liming. In this study the statutes of fourteen states and two municipalities were searched.

SOIL EROSION

Soil erosion and the resulting sedimentation have been characterized as a major nonpoint source of water pollution. Soil erosion results from natural processes as well as agriculture, silviculture, construction and mining activities. However, the effects of those natural processes which contribute to soil erosion such as weathering, dissolution, abrasion, corrosion and material transport may be minimized by appropriate soil conservation measures.

The statutes of fourteen states and two municipalities were searched for statutes relating to control of soil erosion and sedimentation as they relate to agriculture.[1] Neither of the municipalities, Montgomery County, Maryland and the City of Bellevue, Washington, had statutes relevant to the control of erosion from agricultural activities. All fourteen states have soil conservation district statutes which are applicable to agricultural activities.

The soil conservation statutes in all fourteen states are substantially similar and will therefore be discussed generally and by specific example from selected statutes. Most of the soil conservation district statutes grew out of the Dust Bowl disasters of the 1930's. The statutes in all fourteen states were originally enacted in the late 30's; however, many of those states have amended this legislation to reflect current concerns, primarily that of water pollution resulting from erosion. Minnesota is one of such states. In 1973 the purpose clause of the Soil and Water Conservation District Act was amended to acknowledge that improper land use practices have caused and contributed to serious erosion of farm and grazing lands by wind and water and had contributed to the deterioration of underground water reserves. The legislature went on to declare that it was in the interest of the public welfare, health and safety to provide conservation of the soil and soil resources and to prevent soil erosion.[2]

The idea behind the soil conservation district was to set up a local voluntary governmental entity with corporate powers which would educate, encourage, and undertake soil conservation projects. The districts have a variety of names depending on the state in question, the most common being "soil conservation district," but they are also called "soil and water conservation districts," "resource conservation districts" or simply "conservation districts."

The statutes delegate the following powers to the districts:

1. The power to develop a soil conservation plan for their district.

2. The power to carry out preventive and control measures including engineering operations, revegetation, methods of cultivation, or changes in land use.

3. The power to furnish financial or other aid including machinery, equipment, fertilizer, seeds and other materials to land owners wishing to embark on soil conservation projects.

4. The power to require land owners to use certain methods of cultivation, range practices and other land use practices to contribute money and services and materials as a condition for participating in the soil conservation district.

5. The power to adopt land use regulations.

The fifth power of soil conservation districts, the promulgation of land use regulations, is a relatively new power to these districts. The original soil conservation district legislation did not provide for enforcement of plans adopted by the districts. The early function of the district was to develop a plan, to educate landowners within the district about the plan and then to offer assistance to individual landowners for the implementation of the plan. The districts did not have the power, except upon the express permission of a landowner, to enter upon privately owned land and embark on a soil conservation project. The district did, however, have the power to own land and to undertake soil conservation projects on land which is either owned in the name of the district or by the state or county. With the advent of the power to adopt land use regulations, many of the districts were granted powers to enforce the land use regulations.

Michigan, New Jersey, North Dakota, Texas, Utah, Virginia, West Virginia, and Wisconsin have enacted legislation which authorizes soil and water conservation districts to adopt regulations for the use of land lying within the district in the interest of conserving soil and water resources and controlling erosion, runoff and sedimentation. The regulations may specify completion of necessary engineering projects, the observance of particular methods of cultivation including contour cultivating, stripseeding and the planting water conserving plants. The regulations may also specify cropping programs. Provisions may also be made to protect lands exposed by grading, filling, clearing, mineral extraction and similar activities.

The regulations adopted under the Wisconsin legislation may limit the:

> "Size of the area to be exposed, the length of time in season during which it may be exposed, require the establishment of temporary water waste, storm drains, temporary debris basin, terraces and other structural and nonstructural methods to control erosion, runoff, and sedimentation."[4]

The Wisconsin legislation goes on to provide that the regulations may be enforced by other landowners within the district or by the county, all of whom may seek injunctive relief from the local circuit court. There is no provision, however, for the district supervisors to enforce their own regulations.

The soil conservation district legislation in six other states with land use authority provides for enforcement of the regulations promulgated.[5] West Virginia and Virginia legislation provides that the district supervisors may sue in equity for nonconformance with land use regulations. The supervisors also have the right to enter and inspect for compliance.

Texas amended its soil conservation district statutes to authorize the promulgation of land use regulations.[6] The district supervisors are empowered to enter privately owned land to investigate for compliance with land use regulations.

The enforcement provisions in the Texas legislation are similar to those found in West Virginia. When the supervisors find a landowner in noncompliance, they may petition a court with jurisdiction to either order the landowner to undertake necessary work or to cease from improper activities. The court may order the district to undertake the required work itself and then to assess costs against the landowner.

The Michigan legislature did not enact legislation authorizing district soil conservation supervisors to promulgate land use regulations; however, the Michigan legislature has enacted a Soil Erosion and Sediment Control Act[7] which authorizes regulations to be promulgated on the state level to control all major earth-moving activities except logging and mining. Agricultural activities come within the scope of this act, and enforcement is left primarily to the counties. Designated county agents may enter lands to inspect for compliance with soil erosion and sediment control regulations. The state or county may seek injunctions to bar inappropriate activities. Permits may be obtained at the county level. Persons guilty of violation of the sediment and erosion control regulations are guilty of a misdemeanor,[8] but the exact penalties are not specified in the act.

Two states have enacted statutes specifically controlling wind erosion. The Kansas Wind Erosion Statute imposes a duty upon landowners to prevent dust from blowing from land.[9] Where the landowner fails to fulfill this duty, the county may order cultivation of the land in the specific manner and restrict the times of the year during which the land may be cultivated. The board may also order specific projects to be undertaken to prevent or to minimize the blowing of dust. If the county bears the initial cost for this project, the landowner may then be assessed amounts sufficient to reimburse the county.

The Texas Wind Erosion Statute[10] is modeled upon soil conservation district statutes, and wind districts are empowered to prevent undue damage to the land from the unnecessary movement of sand, dust, and soil from lands within or without the district. To achieve this end the districts are authorized to construct improvements to prevent erosion caused by wind, and the district's commissioners have the right to enter upon any lands within the district for the purpose of treating the land to prevent soil erosion. The governing body of each district may charge the owners of the benefitted land for a portion of the total cost of any projects undertaken.

Pennsylvania is not one of the states which was surveyed for all purposes; however, the Clean Streams Law[11] in Pennsylvania was explored thoroughly. Under the provisions of the Clean Streams Act which authorized the Pennsylvania Department of Environmental Resources to regulate any activity which creates a danger of pollution or has a potential for pollution, regulations for controlling soil erosion and sedimentation from agricultural activities have been promulgated.[12] The following operations are considered agricultural activities within the scope of the Clean Streams Law: Production of vegetables, fruits, seeds, nuts, and nursery crops for sale, production of field crops, tame hay or pasture, applicable portions of state game lands, production of woodlot products and crops in livestock research areas. The regulations pertaining to agricultural activities promulgated under the Pennsylvania Clean Streams Law require that each farmer with more than twenty-five acres of land must prepare a conservation plan which will be implemented upon all disturbed land surfaces.[13] The conservation plans for agricultural activities must be implemented by July 1, 1977. These plans must reflect the current agricultural operation. Technical assistance is available through the conservation districts. Site inspections may be made at any time by inspectors designated by the Department of Environmental Resources.

The regulations under the act go on to provide basic plans and standards for erosion and sedimentation control. Permits are required for most earth-moving activities conducted within the Commonwealth of Pennsylvania;[14] however, earth-moving activities involving the plowing or tilling for agricultural purposes are exempt from the requirement of a permit. The regulations do go on to provide that an activity, which does not require a permit, must still comply with all other provisions of the act and the regulations.[15]

The Department of Environmental Regulation may delegate administrative and enforcement duties to counties and other local governments provided the unit of local government has implemented an acceptable plan for administering the program. The local government must supply an adequate and qualified staff for the review of erosion and sediment control plans and for the surveillance and enforcement of this chapter. The Department retains the ultimate responsibility for the administration of the program. Agricultural activities apart from plowing and tilling came within the scope of this act on January 1, 1974; plowing and tilling activities will not be controlled under this act until July 1, 1977.[16]

All of the various soil conservation district statutes and wind erosion statutes authorized the district or state agency with responsibility for implementation to hire staff. None of the legislation contains specific requirements or limitations on staffing. Regulations promulgated under the Pennsylvania Clean Streams law require local units of government which wish to undertake enforcement of the act to hire a qualified and sufficiently large staff to administer and enforce the act effectively.

All soil conservation districts and the wind erosion conservation districts in Texas are empowered to accept contributions, grants, state and Federal funds for the expenditure of carrying out their purposes.[17] The Hawaii, Massachusetts, New Jersey, North Dakota, Virginia and West Virginia statutes provide only for the acceptance of Federal grants, contributions, and gifts to the soil conservation districts.[18] There are no provisions for other funding except as may be provided under specific charter grants or the constitution of the state.

Legislation in California, Minnesota, and Texas provides the most generous fund for soil conservation activities. California authorizes the soil conservation districts to raise money by assessing landowners within the district on an annual basis.[19] The assessment which the districts may impose is not to exceed two cents per one hundred dollars of assessed value. The Minnesota legislation authorizes the state to bear the regular administrative cost of the district and the counties in which projects are undertaken to bear the cost of the portion of each project carried out within its boundaries[20] The Texas legislation for soil conservation districts allows the districts to retain any income from lease or sale of lands and allows them to issue notes for a period of up to one year in order to undertake projects.[21] The wind conservation districts in Texas have the greater powers in that they may issue assessments based on the benefit to various landowners. The districts are also entitled to receive a portion of special road taxes, and they may issue bonds for up to periods of ten years.[22]

Kansas authorizes the supervisors of each district to prepare a budget request each year which is to be presented to the county boards.[23] The county is then to impose assessments on landowners in order to raise the funds needed by the district. Indiana, Michigan, and Wisconsin leave the financial support of soil conservation districts unspecified except for such state and county funds as which may be appropriated on an annual basis.[24]

The assessment provisions such as found in California are the most effective means of providing funds on a regular basis to the soil conservation districts. The imposition of a ceiling on the assessment which the districts may make protects landowners from unexpected tax burdens. The assessment mechanism which allows for collection of the district funds through the property tax system provides a reasonably efficient administrative design. Provisions such as those in Indiana which do not provide a steady and predictable source of income to the districts severely limit the effective planning of projects which those districts may undertake. The budget submission mechanism provided for under the Kansas legislation falls somewhere in between the provisions of California and Indiana in terms of assuring the effectiveness of the soil conservation districts. When the soil conservation district statutes were enacted, the prevailing idea was to set up a voluntary structure which would provide some direction to soil conservation efforts within the district. The acts were only intended to authorize the voluntary banding together of individuals into a district, in order to develop a conservation plan for the district. Then the district, through its supervisors, would undertake various activities with the consent of landowners to implement the conservation plan. Landowners within the district would be encouraged to undertake conservation measures on their property. The encouragement of soil conservation measures took the form of offering equipment and technical assistance to landowners willing to undertake various soil conservation projects.

Six of these states have not changed their soil conservation district legislation since its inception.[25] Thus, the statutes in these states provide no mechanism for enforcing the conservation plans developed in the district. Pennsylvania's soil conservation district legislation has not been amended to provide an enforcement mechanism,[26] but with the enactment of the Clean Streams Law the State Legislature did provide a mandatory mechanism for controlling soil erosion and sedimentation.[27]

Eight states[28] amended their soil conservation district legislation to authorize the district supervisors to promulgate land use regulations for the district. In each of these cases a mechanism was provided to insure compliance with the land use regulations. Michigan legislators did not provide the power to enact land use regulations to soil conservation districts.

However, the legislature enacted the Soil Erosion and Sediment Control Act which provided for mandatory controls.[29]

The legislation in the nine states with enforcement provisions authorizes the district supervisors of the responsible agency to enter privately owned lands to inspect for compliance with regulations issued under the statutes, Michigan and Pennsylvania being the exceptions in this case. Having established the mechanism for an initial determination of compliance and noncompliance with the regulations, we now come to the question of an enforcement mechanism.

Six state legislations provide for injunctions against landowners who are in violation of the land use regulations. The legislation in North Dakota, Texas, Virginia, and West Virginia authorizes the district boards to go into court and seek an injunction or a bill of equity.[30] Activities conducted in violation of land use statutes may be enjoined. Where positive action must be taken to prevent soil erosion, the districts in these States may petition the court for an order directing the landowner to undertake the necessary work or for an order authorizing the district to enter upon the land and perform the required project. In all of the states where the district undertakes the performing of a project under court order on the land of a private landowner, the district may recover the costs of the project and the legal proceeding.

Legislation in Michigan and Wisconsin empowers counties to enforce the soil erosion control regulations.[31] The Wisconsin legislation also allows private landowners to seek injunctions to enforce land use regulations. In Pennsylvania any activity, for which a permit is required and not obtained, conducted in violation of the permit, is declared by the statute to be a nuisance.[32] Such a legislative declaration permits the local law enforcement officer to stop such activities without resorting to the court for a legal determination.

The criteria used for judging the effectiveness of various penalty provisions is discussed in this report in the introduction and the following discussion will use the introductory material as a framework. Injunction and bill of equity provisions which allow the promulgating and inspecting body to seek the legal remedy are deemed to be more effective than provisions which require another governmental entity to seek legal action. Thus, under our system for judging effectiveness, the legislation of North Dakota, Texas, Virginia, and West Virginia is judged to be more effective for preventing violation of land use regulations than that of Wisconsin. Under the Michigan Soil Erosion and Sediment Control law, the counties have the power to inspect and enforce. Therefore, the Michigan style of statute falls into the first category.

The Wisconsin legislation provides for the seeking of injunctions by private persons. This is on the surface a paricularly effective way of insuring the carrying out of regulations since persons who would be at all harmed by the failure of the landowner to comply with land use regulations would have a speedy legal remedy at their disposal. However, no provision is made for the cost to be borne by the party violating the statute or by a specific fund. Therefore, private persons who would seek such legal remedy would have to be suffering from a substantial harm to undertake the economic burden of pursuing the legal remedy. The Wisconsin legislation, while it allows private persons to seek an injunction, does not provide for the recovery of damages by the same persons.[33] Legislation in New Jersey and Utah authorizes landowners, who suffer damage due to another landowner's failure to comply with land use regulations, to recover damages for the failure to comply.[34] The Utah legislation is slightly more difficult for a landowner to recover than under New Jersey's. In addition to establishing damage to his property through failure to comply with land use regulations, the landowner must also establish that the failure to comply resulted in increased erosion. In New Jersey this extra proof is not required, damages may be awarded simply for the failure to comply with land use regulations and subsequent damage to a landowner's property.

Only three states which were searched provide for criminal penalties under its soil conservation district statute.[35] Utah provides that persons found guilty of violating land use statutes are guilty of a misdemeanor which is punishable by a fine of $100 to $500 per offense.[36] Erosion and sediment control legislation in Michigan provides for a criminal penalty. The Michigan legislation does not specify the actual penalties but does say "the person found guilty of violating regulations promulgated under the act or failing to secure a permit when required for the conducting of land moving operations is guilty of a misdemeanor."[37]

The Pennsylvania Clean Streams Law provides that any person or municipality who violates any provision of the act or any rule or regulation is guilty of a summary offense and upon conviction shall be subject to a fine of $100 to $1000 for each offense and upon default in paying such fine may be subject to imprisonment for a period of sixty days.[38] The legislation also goes on to provide that if within two years following such a conviction, the person or municipality again violates any provision of the act, rule, regulation or order of the department, such person or municipality is guilty of a misdemeanor and shall be subject to a fine of $100 to $5,000 for each offense.[39] The period of possible imprisonment in the case of a second offense may be for as long as one year. The Pennsylvania legislation also provides for the imposition of civil penalties which are payable to the state.[40] Civil penalties assessed for violation shall not exceed ten thousand dollars plus five hundred dollars for each day of continued violation. In determining the amount of civil penalty the willfulness of the violation, the damage or injury to waters of the Commonwealth, the cost of restoration and any other relevant factors shall be considered.

The penalties, both criminal and civil, which are imposed by legislation in various states are all of a similar nature.

The imprisonments or fines imposed under the legislation are of a reasonable nature, and it is really not possible to say whether a five-hundred dollar fine is more effective than a thousand-dollar fine. The real key to the effectiveness of penalties of this type is the manner is which the courts apply them. It is not impossible to make this determination from a reading of the statutes.

GRAZING

An agricultural activity which may be overlooked but which can contribute signficiantly to problems of soil erosion is the grazing of animals. North Dakota is the only one of the states which was searched which has a grazing law.[41]

The North Dakota legislation provides for the organization of cooperative grazing associations which are authorized to coordinate with the Federal and state government in conserving restoring and developing forage resources and granting grazing permits in order to assure a safe policy of forage conservation. The North Dakota legislation specifies no public or private remedies or provisions for civil or criminal penalties It is merely a cooperative effort to coordinate and encourage wise grazing practices. In terms of measuring such legislation as a possible tool for helping in the control of nonpoint source pollution, all that can be said is that it would be a vehicle for educating members of grazing associations to the problems and possible solutions of pollution growing out of grazing activities. However, the legislation as it stands now provides no effective mechanism for helping abate nonpoint source pollution.

ECONOMIC POISONS, PESTICIDES AND HERBICIDES

Economic poisons and pesticides are often used interchangeably; however, some states, such as New Jersey and Utah, have enacted legislation for both economic poisons and for pesticides. An economic poison is any substance or mixture of substances labelled or designed for use in preventing, destroying, repelling or mitigating insects, rodents, predatory animals, fungi, weeds, and other forms of plant, animal life or viruses, except viruses on or in living man or other animals, and any other substance intended for use as a defoliant or deflorant. Pesticides have been defined simply as chemicals or other substances which were used to destroy plant and animal pests. Herbicides are chemicals used to prevent, destroy or repel the growth of unwanted plant life.

Water pollution attributable to the use of economic poisons, pesticides and herbicides are really the same. There may be runoff immediately following application of such substances, or there may be delayed runoff when such substances settle in the soil and do not decompose. If soil containing such substances is disturbed, runoff can occur at that time. The runoff of such substances may affect plant and animal life, including human beings, at any stage of the hydrologic cycle.

In this section we are examining only the pesticide statutes from California, Hawaii, Indiana, Kansas, Massachusetts, Michigan, Minnesota, New Jersey, North Dakota, Texas, Utah, Virginia, West Virginia and Wisconsin. Since the legislation dealing with economic poisons, pesticides and herbicides is so closely related, laws dealing with all these topics will be discussed together; the specific subject of each statute will be identified. Most states have more than one statute which deal with the regulation of economic poisons, pesticides, and herbicides. For example California has a statute dealing with economic poisons and a statute dealing with restricted materials. Where there is more than one statute in a particular state, it will be noted; however, the statute which has the most potential for controlling adverse water contamination resulting from the use of such substances will be emphasized and discussed in greater detail.

All fourteen states searched have some kind of legislation dealing with the regulation of economic poisons or pesticides.

Most of that legislation, when it was conceived of and enacted, was concerned with the proper labeling of economic poisons and with preventing the sale and distribution of adulterated products. Much of this legislation has been amended to include control over use and restriction on substances employed in the control of pests.

Seven states, California, Hawaii, Kansas, Massachusetts, New Jersey, Utah and Virginia, have enacted legislation which controls the use of pesticides and/or economic poisons and which provides for the restricted use or banning of such substances where their continued use will be damaging to the environment or would contaminate the State's waters.[42] The Kansas Pesticide Use Law was enacted with the express purpose of preventing injury to men and the environment through the use of pesticides.[43] The New Jersey legislature noted that although great benefit had been derived from the use of pesticides, indiscriminate use threatens the environment and therefore should be controlled.[44] The New Jersey Pesticide Control Act empowers the Department of Environmental Control to promulgate regulations and issue orders controlling the sale and use of pesticides which might have an adverse effect on the environment or on man. The Department is empowered to conduct inspections in order to determine compliance with its regulations and orders. The Department is also empowered to enforce its authorizing legislation by seeking injunctions from any court of competent jurisdiction.[45] Courts with jurisdiction to issue injunctions may also, after final determination impose fines of up to $3000 per offense.

The California Restricted Materials legislation[46] specifically addresses immediate water contamination from drift or runoff of pesticides and subsequent contamination from persistent residues in soils. The California legislation empowers the Department of Agriculture to promulgate detailed use regulations for restricted materials, including pesticides with adverse environmental effects. Permits are required for any application of restricted material; however, farmers are exempt from the permit requirement when applying restricted materials on their own farms. Since agriculture is one of the major users of pesticides, this exemption of farmers prevents the Restricted Materials legislation from having as great an impact as it might have had, had farmers been regulated in the same way as any other persons employing restricted material.

The Massachusetts pesticide legislation[47] authorizes regulations controlling methods of application and use of pesticides in order to protect the public health and the public interest in wildlife and water resources. It also requires anyone applying regulated materials by aircraft to be licensed. Under this legislation, however, farmers are exempted from the licensing requirement when applying pesticides by aircraft, although they must register on each occasion of aerial pesticide application.

With the exception of California and Massachusetts, whose pesticide statutes specifically limit the application of restrictive regulations to individual farmers, the pesticide statutes which specifically acknowledge prevention of environmental damage as a goal have similar provisions. All the state legislation considered requires the registration of pesticides or economic poisons. The agency with regulatory responsibility, usually the State's department of agriculture, is empowered to promulgate regulations restricting the sale, the time of sale, the method of application and the uses to which specific pesticides may be put. California, Hawaii, Kansas, Massachusetts, and Utah all require the licensing of individuals who apply economic poisons or pesticides for hire.[48] The statutes, which provide not only a regulatory scheme for pesticide use and methods of application but also license commercial applicators, provide an effective means of controlling water pollution from the use of pesticides and economic poisons.

Three states, Indiana, Michigan and North Dakota, while not addressing themselves directly to the adverse environmental effects of economic poisons or pesticides, establish criteria for restricting their use. When an economic poison is placed on the restricted list the legislation provides for the limiting of uses and methods of application. Indiana has two laws regulating the use and sale of economic poisons: the Indiana Herbicides Law and the Pesticides Act.[49] The Herbicide legislation is primarily a registration and labeling act, and does not provide for restricting the use or sale of herbicides. Supervision of both the Herbicide Law and the Pesticide Act is within the Office of the State Chemist. The Chemist may seize or issue stop sale orders to dealers in herbicides who are selling products which are improperly labelled or have not been registered in the State.

The Indiana pesticide legislation is similar to that State's herbicide legislation in that all pesticides must be registered with the State and must meet certain labeling requirements. However, after a hearing by the Pesticide Review Board, which is established under the legislation, the State Chemist may issue regulations restricting the sale, time of sale, method of application, and the use to which restricted pesticides are put.[50] The State Chemist is authorized to promulgate regulations in order to carry out his duties. The State Chemist or his agents are also authorized to conduct inspections in order to assure compliance.

The actual enforcement under the pesticide legislation resides in the office of the prosecuting attorney of the county in which the violations occurred. Conviction of a violation under the Pesticide Act is a misdemeanor punishable by a maximum fine of $1000 for the first offense. Subsequent offenses are punishable by maximum fines of $5000. The State Chemist may also seek injunctions in order to prevent violation of the Pesticide Act.[51]

Michigan also has two acts which regulate the sale and application of economic poisons. There is the Insecticide, Fungicide, and Rodenticide Act which is similar to the legislation in Indiana, and there is legislation regulating the sale and distribution of economic poisons.[52] Economic poisons must be registered with the State and the Department of Agriculture may place economic poisons on a list of restricted pesticides after a hearing has been held. Regulations may be adopted restricting the time and conditions of sale and the use of restricted pesticides.

Special licenses are required for dealers selling restricted pesticides. Applicants for a license to sell restricted pesticides must establish their knowledge of the laws and rules governing the use and sale of restricted economic poisons and their responsibilities in carrying on the business of a restricted use pesticide dealer. Violations of the act are prosecuted by the local prosecuting attorney. Michigan legislation regulating the application of economic poisons requires persons who are in the business of applying such poisons to be licensed by the State.[53] In order to obtain a license applicants must pass an examination demonstrating their knowledge and understanding of the effects of economic poisons, the susceptability of economic poisons to wind drift and knowledge of the use of equipment employed in the application of economic poisons. This legislation however, does not apply to farmers when applying economic poisons on their own or on neighboring farms in exchange for other services.

North Dakota's Insecticide, Fungicide, and Rodenticide Act of 1947[54] requires the registration of economic poisons with the State Food Commissioner and Chemist. The legislation specifies labeling requirements and registration of manufacturers or distributors. The legislation does provide for the State Food Commissioner and Chemist to hold hearings during which they may determine whether an economic poison should be placed on the restricted use list. The Commissioner may promulgate regulations specifying the use and method of application for restricted economic poisons. Violations of the Indiana legislation are misdemeanors punishable by a maximum fine of $300.

The legislation in Indiana, Michigan and North Dakota provides statutory framework which could be used to control adverse environmental effects resulting from the use of various pesticides. While environmental considerations are not specifically included within the considerations which allow the restricting of various economic poisons, such considerations are not too far removed from the language of the statutes, usually to protect the public health and welfare. Protecting the public health and welfare can be read to include protecting the environment and thus protecting the public interest. The Michigan legislation[55] specifically exempts farmers when using restricted use pesticides for their own use or on a neighboring farm. Since agricultural activities are a major source of contamination from pesticides such an exemption seriously weakens the effectiveness of the legislation as a means of controlling water pollution from pesticides.

Wisconsin's legislation regulating the use of pesticides provides for the registration of all pesticides sold within the State.[56] Registration may be revoked by the Department of Agriculture if it finds a particular pesticide to be an excessive hazard. The department may also issue regulations governing the use and method of application when granting registration to a pesticide in order to reduce the hazards which might result from its use. The penalties in Wisconsin provide for minimum fines of $100 to $200 and/or thirty days imprisonment for the first violation and ninety days imprisonment for subsequent violations.

Two states, Minnesota and Texas, have legislation which merely requires the registration of economic poisons sold within the State and sets minimum labeling requirements.[57] Minnesota and Texas both have additional legislation which requires the licensing of individuals who apply economic poisons or pesticides for hire. The Minnesota legislation provides that the Commissioner of Agriculture may issue regulations prescribing the methods to be used in the custom application of pesticides.

> "The regulations may relate to the time, place, manner and method of application of pesticides, may restrict or prohibit the use of materials in designated areas during specified periods of time and may encompass all reasonable factors which the Commissioner deems necessary to prevent damage or injury to: (1) Plants, including forage plants, on adjacent or nearby lands; (2) Wildlife in the adjoining or nearby areas; (3) Fish and other aquatic life in waters in reasonable proximity to the area to be treated; (4) Pollinating insects, animals, or persons."[58]

The language of the Minnesota statute appears specific enough to provide a satisfactory statutory framework for controlling contamination of waters resulting from the application of pesticides by licensed commercial operators; however, the Minnesota legislation specifically exempts farmers applying pesticides to their own property or for hire within fifteen miles of their own farm.

The Insecticide, Fungicide, and Rodenticide Act of Texas[59] requires the registration of all economic poisons sold within the State. The legislation is similar to others previously discussed. It prescribes minimum labeling requirements and prohibits sale of adulterated economic poisons.

In 1971 the act was amended to authorize the Commissioner of Agriculture, after a hearing and notice, to cancel the registration of or refuse to register any economic poison which has been demonstrated to have serious uncontrollable adverse effects "within or without" the agricultural environment where the use of the economic pesticide is of less public value or greater detriment to the environment than the other benefits received by its use even when properly applied.[60]

Texas also has special legislation regulating the sale, use and application of herbicides.[61] This act, however, is limited only to applications of herbicides and applies only in specified counties. In other counties there are no specific controls on herbicides except for the provisions of the Insecticide, Fungicide, and Rodenticide Act. The herbicide legislation requires all persons applying herbicides to a total acreage of ten or more acres in any calendar year to obtain a permit. All custom appliers of herbicides must be licensed. Each application of a herbicide requires the acquisition of a permit, except where the application is to a lawn. The Herbicide Act however does not specifically authorize the regulation or restriction of certain herbicides, the method of application or the use. Violations of the Herbicide Act are punishable by fines of $100 to $2000 and/or thirty days imprisonment.

The only state which was searched which did not have some legislation regulating the application of pesticides or those commercially applying pesticides was West Virginia. West Virginia's Pesticide Act of 1961[62] provides for the registration of economic poison and sets labeling requirements for those sold within the state. There are no provisions for restricting the sale, or for limiting the use of specific poisons. The Department of Agriculture is authorized only to seize adulterated, mislabelled or unregistered economic poisons which are sold within the State. There appear to be no provisions in the West Virginia legislation which could in any way be construed to authorize the regulation of the sale or use of pesticides in order to prevent environmental contamination.

SPRAYING AND DUSTING

Only three of the states searched, Minnesota, North Dakota, and Utah, have legislation regulating the spraying and dusting of crops apart from legislation regulating the sale of economic poisons. The Minnesota Spraying and Dusting Act,[63] requires the crop spraying to be done with chemicals which have been approved by the Commissioner of Agriculture.

The Commissioner of Agriculture is also authorized to promulgate rules and regulations with respect to the spraying and dusting of crops. Among the considerations which the Commissioner is to keep in mind when promulgating regulations is the need to prevent damage to aquatic plants and animals by restricting the use of specific chemicals. A license is required for crop dusting, with particularly stringent controls in effect when spraying is to be undertaken near public waters. The Commissioner is also authorized to inspect for the use of proper equipment and chemicals.

An applicator's license may be revoked after notice and hearing for violation of any provisions of the statute. The Commissioner may also seek injunctions to prevent violation of rules and regulations as well as provisions of the statute. The spraying and dusting legislation authorizes individuals whose crops have been damaged by the application of a pesticide to file a statement with the Commissioner of Agriculture.

North Dakota legislation providing for the regulation of crop spraying places such activities under the jurisdiction of the Aeronautic Commission.[64] Individuals wishing to spray crops from an aircraft must obtain a license from the Commission. The Commission has the authority to promulgate rules and regulations with respect to the spraying of crops in order to insure the safety and protection of persons and property. Any person violating the statute authorizing the Aeronautic Commission to regulate aerial spraying or any rule or regulation promulgated by the Commission shall be punished by a fine not to exceed $100 and/or imprisonment for not more than thirty days.

The Utah legislation[65] declares it unlawful for anyone to spray crops with a poisonous material without giving written notice to property owners or public officials. The statute does not proivde for any controls on the spraying of crops.

While neither the Minnesota nor North Dakota statutes specifically provide for consideration of the environment in the regulating of crop spraying and dusting, the language of both statutes is sufficiently broad that such considerations could be taken into account in promulgating regulations which control or restrict the manner in which pesticides are applied by aerial spraying and dusting.

FERTILIZERS

Another major source of water pollution from agricultural activities comes from the use of fertilizers and soil conditioners. Twelve of the fourteen states searched have legislation dealing with the sale, registration and manufacture of fertilizers.[66] The primary concern of all of the legislation dealing with regulation of commercial fertilizers is to require registration of dealers or manufacturers of commercial fertilizers, to set minimum standards for analysis and labeling and to assure appropriate branding and packaging of the fertilizers.

Only three of the twelve statutes which were analyzed have any mention at all of restricting the use or sale of inappropriately labeled and registered commercial fertilizers. In California, Massachusetts, and New Jersey, the Department of Agriculture is authorized to refuse registration to fertilizers which may be injurious to beneficial plant life when properly used.[67]

The legislation in the other nine states is primarily labeling legislation. There are no provisions in those statutes which might be construed to authorize restricting the use of various fertilizers in order to prevent nonpoint source water pollution. Therefore, these statutes will not be discussed.

The legislation in all twelve states pertaining to the regulation of commercial fertilizers provides for a system of nominal fines and/or revocation of registration of licenses to distribute fertilizer.

None of these penalties are aimed at preventing or controlling activities which might result in water pollution.

AGRICULTURAL LIMING

The problems associated with agricultural liming are similar to those associated with respect to fertilizers. Massachusetts and California include agricultural liming under the same legislation as that which regulates commercial fertilizers.[68] The statutes do not differentiate between the use of lime and fertilizers. Therefore, the discussion in the preceding section with respect to those states are equally applicable to activities involving agricultural liming.

Four other states, New Jersey, Virginia, West Virginia and Wisconsin have specific legislation dealing with agricultural liming.[69] As with most of the commercial fertilizer legislation the agricultural liming acts are primarily concerned with registration and appropriate labeling of such substances. However, the New Jersey and Virginia Agricultural Liming Acts prohibit the sale of any agricultural lime which contains toxic materials in quantities injurious to plants or animals; however, it does not appear that there was any intent on the part of the legislature when the statutes were enacted to control pollution resulting from the use of agricultural lime.

The West Virginia and Wisconsin Agricultural Liming Acts are strictly labeling and registration legislation, and contain no provisions which might be useful in the controlling of nonpoint source water pollution from agricultural activities as a nonpoint source.

FOOTNOTES

AGRICULTURE

[1] California, Indiana, Kansas, Massachusetts, Michigan, Minnesota, New Jersey, North Dakota, Pennsylvania, Texas, Utah, Virginia, West Virginia, and Wisconsin; Montgomery County, Maryland and Bellevue, Washington.

[2] Minn. Stat. Ann. §§ 40.005 (Supp. 1973).

[3] Mich. Comp. Laws Ann. §§ 282.101-.117 (West 1967), *as amended*, (West Supp. 1973); N.J. Stat. Ann. § 4:24-23 (1973); N.D. Cent. Code § 4-22-27 (1959), *as amended*, (Supp. 1974); Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969), *as amended*, (Supp. 1974); Utah Code Ann. § 62-1-9 (1968); Va. Code Ann. § 21-66 (1960), as amended, (Supp. 1974); W.Va. Code Ann. § 19-21A-9 (1971); Wisc. Stat. Ann. § 92;09 (1972), *as amended*, (Supp. 1974).

[4] Wisc. Stat. Ann. § 92.09 (1972), *as amended*, (Supp. 1974).

[5] N.J. Stat. Ann. § 4:24-27 (1973); N.D. Cent. Code § 4-22-34 (1959); Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969), *as amended*, (Supp. 1974); Utah Code Ann. § 62-1-11 (1968); Va. Code Ann. § 21-83 (1960), *as amended*, (Supp. 1974); W.Va. Code Ann. § 19-21A-10 (1971).

[6] Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969), *as amended*, (Supp. 1974).

[7] Mich. Comp. Laws Ann. §§ 282.101-282.117 (Supp. 1974).

[8] Id. § 282.113 (Supp. 1974).

[9] Kan. Stat. Ann. §§ 2-2001 to 2-2011 (1964), *as amended*, (Supp. 1974).

[10] Tex. Rev. Civ. Stat. art. 165A-2 and 165A-3 (Vernon's 1969).

[11] Pa. Stat. Ann. tit. 35, §§ 691.1-691.1001 (1964), *as amended*, (Supp. 1974).

[12] Pa. Rules and Regs., tit. 25, §§ 102.10-.61 (1972).

[13] Soil Erosion and Sedimentation Control Manual for Agriculture, (1975: Pennsylvania Department of Environmental Resources).

[14] *Id.*

[15] *Id.*

[16] Pa. Rules and Regs., tit. 25, § 102.61 (1972).

[17] Tex. Rev. Civ. Stat. art. 165A-4, -2 (Vernon's 1969).

[18] Mass. Gen. Laws ch. 21, § 24(7) (1973); N.J. Stat. Ann. § 4:24-6 (1973); N.D. Cent. Code § 4-22-06 (1959); Va. Code Ann. § 21-62 (Supp. 1974); W.Va. Code Ann. § 19-21A-8 (1971).

[19] Cal. Pub. Res. Code § 9026 (West 1956).

[20] Minn. Stat. Ann. § 40.072 (Supp. 1975).

[21] Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969).

[22] Id. art. 165A-2 (Vernon's 1969).

[23] Kan. Stat. Ann. § 2-1907b (Supp. 1974).

[24] Ind. Ann. Stat. § 13-3-3-11 (1973); Mich. Comp. Laws Ann. § 282.16 (1963); Wis. Stat. Ann. § 92.20 (1972).

[25] California, Indiana, Kansas, Massachusetts, Minnesota, and Pennsylvania.

[26] Pa. Stat. Ann. tit. 3, § 849-864 (1963), *as amended*, (Supp. 1973).

[27] See f.n. 11.

[28] Michigan, New Jersey, North Dakota, Texas, Utah, Virginia, West Virginia, and Wisconsin.

[29] See f.n. 7.

[30] N.D. Cent. Code § 4-22-34 (1959); Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969); Va. Code Ann. § 21-83 (1960), *as amended*, (Supp. 1974); W.Va. Code Ann. § 19-21A-10 (1971).

[31] Mich. Comp. Laws Ann. § 282.641 (1963); Wis. Stat. Ann. § 92.10 (1972).

[32] Pa. Stat. Ann. tit. 35, § 691.503 (1964).

[33] Wis. Stat. Ann. § 92.10 (1972), *as amended*, (Supp. 1975).

[34] N.J. Stat. Ann. § 4:24-27 (1973); Utah Code Ann. § 62-1-11 (1968).

[35] Michigan, Utah and Wisconsin.

[36] Utah Code Ann. § 72-1-11 (1968).

[37] Mich. Comp. Laws Ann. § 92.11 (1972).

[38] Pa. Stat. Ann. tit. 3, § 691.602 (Supp. 1973).

[39] *Id.*

[40] *Id.*

[41] N.D. Cent. Code §§ 36-08-01 to 36-08-09 (1972).

[42] Cal. Agric. Code §§ 12751-12994, 14101-14104 (West 1968), *as amended*, (West Supp. 1974); Hawaii Rev. Stat. §§ 149A-1 to 149A-43 (Supp. 1974); Kan. Stat. Ann. §§ 2-2413 to 2-2437 (Supp. 1974); Mass. Gen. Laws Ann. ch. 94B, §§ 11-22 (1972), *as amended*, (Supp. 1974); N.J. Rev. Stat. §§ 13:1F-1 to 13:1F-14 (Supp. 1974); Utah Code Ann. §§ 44-30 to 44-40 (1971); Va. Code Ann. §§ 3.1-189 to 3.1-249 (1973).

[43] Kan. Stat. Ann. §§ 2-2413 to 2-2437 (Supp. 1974).

[44] N.J. Rev. Stat. § 13:1F-1 (Supp. 1974).

[45] N.J. Rev. Stat. § 13:1F-10 (Supp. 1974).

[46] Cal. Agric. Code §§ 14101-14104 (West Supp. 1974).

[47] Mass. Gen. Laws Ann. ch. 94B, §§ 11-22 (1972), *as amended*, (Supp. 1974).

[48] Cal. Agric. Code § 14006.5 (West Supp. 1974); Hawaii Rev. Stat. §§ 460J-1 to 460J-27 (Supp. 1974); Kan. Stat. Ann. §§ 2-2401 to 2-2411 (Supp. 1974); Mass. Gen. Laws Ann. ch. 94B, §§ 11-22 (1973); Utah Code Ann. § 4-4-17 (1973).

[49] Ind. Ann. Stat. §§ 15-3-1-1 to 15-3-1-16, 15-3-3.5-1 to 15-3-3.5 (1973).

[50] *Id.* § 15-3-3.5-10 (1973).

[51] *Id.* § 15-3-3.5-23 (1973).

[52] Mich. Comp. Laws Ann. §§ 286.160-286.173, 286.411-286.420 (1967), *as amended*, (Supp. 1973).

[53] Id. § 286.413 (1967).

[54] N.D. Cent. Code §§ 19-18-01 to 19-18-11 (1971).

[55] Mich. Comp. Laws Ann. § 286.412 (1967).

[56] Wis. Stat. Ann. §§ 94.67-94.71 (1972), *as amended*, (Supp. 1975).

[57] Minn. Stat. Ann. §§ 24.071-24.077 (1963), *as amended*, (Supp. 1973); Tex. Rev. Civ. Stat. Ann. art. 135b-5 (Vernon's 1969), *as amended*, (Supp. 1974).

[58] Minn. Stat. Ann. §§ 18A.01- 18A.11 (Supp. 1973).

[59] Tex. Rev. Civ. Stat. Ann. art. 135b-5 (Vernon's 1969), *as amended*, (Supp. 1974).

[60] *Id.*

[61] Tex. Rev. Civ. Stat. Ann. art. 135b-4, (Vernon's 1969).

[62] W.Va. Code Ann. §§ 19-16A-1 to 19-16A-13 (1971).

[63] Minn. Stat. Ann. §§ 18.031-18.036 (1963), *as amended*, (Supp. 1973).

[64] N.D. Cent. Code § 2-05-18 (1959), *as amended*, (Supp. 1973).

[65] Utah Code Ann. § 4-3-5 (1971).

[66] California, Indiana, Kansas, Massachusetts, Minnesota, New Jersey, North Dakota, Texas, Utah, Virginia, West Virginia and Wisconsin.

[67] Cal. Agric. Code §§ 14501-14552 (West 1968), *as amended*, (West Supp. 1974); Mass. Gen. Laws Ann. ch. 128, §§ 64-83 (1974); N.J. Rev. Stat. §§ 4:9-15.1 to 4:9-15.42 (1973).

[68] *Id*.

[69] N.J. Rev. Stat. §§ 4:9-21.1 to 4:9-21.10 (1973); Va. Code Ann. §§ 3.1-126.1 to 3.1-126.130 (Supp. 1974); W.Va. Code §§ 19-15A-1 to 19-15A-10 (1971); Wisc. Stat. Ann. § 94.66 (1972).

BUILDING AND CONSTRUCTION

According to an Environmental Protection Agency (EPA) study, each year construction of new highways, dams, power plants, housing developments and other construction activities use up more than 400,000 hectares (about 1,000,000 acres) of land, much of which had been previously utilized for the production of food, feed, fiber crops, and timber while serving as elements of water recharge, wildlife and recreation systems.

Construction activities incidental to the development of land and water resources represent a major nonpoint or area source of surface water contaminants. Contaminants attributable to construction activities can be prevented by the timely utilization of empirical structural and soil stabilization measures presently available. According to EPA studies, pollution control plans for the construction activities should follow certain basic procedures which include:

1. Planning structures and vegetation rehabilitation measures which will protect environmentally vulnerable areas.
2. Controlling the speed and volume of runoff water from construction sites with detention of storm water and utilization of diversion structures to divert water from graded areas.
3. Trapping sediment on site.
4. Stabilizing exposed soils by timely site grading, seeding, and mulching coupled with stage grading, and sodding.
5. Determining the extent of the need for water pollution abatement before construction begins.
6. Specifying water pollution abatement procedures in the construction contract.
7. Preparing water quality control plans as part of development and building construction programs to minimize stream turbidity, changes in stream, flow, and limit the movement of oils, waste water, fuels, aggregate leach water, mineral salts, pesticides and other contaminants into waterways.

8. Outlining procedures for the maintenance and inspection of structural and vegetative controls graded areas, borrow pits, dredge spoil areas, and soil stockpile areas, among others, on a periodic basis and making such procedures part of the construction contract.

In view of the conclusions reached by the EPA studies, the Contractor has directed its research efforts toward consideration of state and local legislation which can be called upon to effect the necessary prevention and abatement of water pollution, from contruction activities. Since planning for pollution control from nonpoint sources of water pollution is but a single facet of comprehensive planning for land and water resource management, those state statutes which authorize planning agencies and municipalities to control construction activities through the approval of architectural and engineering drawings and specifications are generally relevant to any local program for control of water pollution from building and construction activities as nonpoint sources. There can be little doubt that provision for water pollution control practices should be a condition of every building permit granted by a municipality and that such practices should generally follow approved methods developed over many years by the Soil Conservation Service and other Federal and state agencies.

EPA studies suggested that specific instructions as to structural and vegetative soil stabilization practices should be included in every construction contract, but also pinpointed out the need for additional control as the project develops. Since the need for water pollution abatement measures is determined by the nature and characteristics of each site relative to its surrounding regional ecological system, water quality control plans should be prepared to minimize stream turbidity and changes in stream flow temperature, while contamination by oil, waste water, aggregate wash water, pesticides and other materials can be controlled by adequate erosion and sediment control measures.

It is obvious that the most effective legal controls of water pollution from construction activities will be those that permit a regulatory agency, municipality or other governmental or quasi-governmental body to monitor the activities until completion and modify the terms of any permit or license granted throughout the term of the construction in accordance with some definitely measurable criteria, such as stream flow characteristics or water quality measurements.

Computer and manual searches of fourteen states and one county have yielded forty-six statutes enabling state administrative agencies and local governmental units, such as counties, cities, municipalities, villages and towns, and other municipal subdivisions to regulate construction. Thirty statutes deal with the powers of local governmental units and their subdivisions and sixteen deal with state administrative agencies in general. All forty-six statutes could be interpreted as means of controlling construction activities in order to abate water pollution. These statutes either grant a state administrative agency or a local governmental entity the power to construct or the power to regulate construction, and they have been categorized according to the subject matter to facilitate comparison. The authority to construct or to regulate construction is based on the police power of the state to protect public health, safety and welfare.

STATUTES CONTROLLING WATER POLLUTION

Twelve statutes specify the reduction or elimination of water pollution as the objective of the regulatory scheme. California's Subdivision Map Act grants to the legislative bodies of cities and counties, the power to regulate by ordinance the design and improvement of subdivisions in order to ensure proper grading and to prevent sedimentation, a nonpoint source water pollution process.[1]

In Michigan the Director of the State Department of Natural Resources is authorized to issue permits for the construction of dams only after the land to be flooded is properly cleared and only if the dam will not "have a significant adverse effect on fish, wildlife, ... or infringe the public rights in state waters.[2] The public rights language invokes the trust doctrine which, in this case, means that the public has an interest in unpolluted State waters. Under Michigan's Great Lakes Submerged Lands Acts,[3] the Department of Health may object to the Department of Conservation granting a permit for filling in submerged unpatented lands or for constructing an artificial waterway opening into the Great Lakes. The Department of Conservation must find that the project will not injure the public interest and trust in the unpatented lands, around and in the Great Lakes, including bays and harbors which are held in trust by the State. No standards are set in the statute, but the Department is to formulate its own standards by invoking the trust doctrine to consider whether a proposed project's increase in water pollution mandates against project approval.[4]

A New Jersey provision authorizing the Commissioner of the Department of Transportation to adopt rules and regulations for the construction, reconstruction and maintenance of State highways has a companion provision which provides for compensation by the State, of private parties for contamination of a potable well water supply if the contamination is caused by the Department's road construction activities.[5]

In North Dakota, the Public Service Commission is authorized to set standards for fences and railroad crossings constructed by railroads doing business within the State.[6] These companies are required to restore nearby streams or watercourses to their preconstruction condition.[7]

The Commissioner of the Department of Natural Resources of Massachusetts has the power to regulate or prohibit the dredging, filling, removing or otherwise altering or polluting of inland wetlands. The use or improvement of lands and water for agricultural purposes is exempt from regulation by the Commissioner. The statute expressly prohibits anyone from polluting or altering water flows or water levels in a manner that injures fish or fish spawn without a permit, unless such a person is acting with appropriate authority to provide public water supplies.[8]

In West Virginia, the Commissioner of Highways has the authority to promulgate rules and regulations preserving methods for road construction, best suited to curb construction-related pollution.[9] The Commissioner may issue specific orders as well as promulgate rules and regulations. The Commissioner can enforce his orders, rules and regulations by resorting to appropriate legal or equitable remedies.[10]

In Virginia, cities, towns and municipal corporations may regulate construction[11] and may also protect their water supplies to prevent them from becoming polluted.[12] These regulatory powers appear separately but could be read together to mean that a local government entity may regulate construction to prevent pollution of its water supply. Cities, municipal corporations, and towns have the power to pass ordinances, impose penalties and seek equitable remedies.[13] Therefore, they could enforce regulations to abate water supply pollution.

The Department of Natural Resources in Wisconsin has the power to promulgate orders and regulations specifying methods of construction, operation and the maintenance of special equipment for dams and bridges in order to protect the public health and safety and to protect property.[14] Permits are required for dam construction and are not to be issued if environmental pollution would result.[15] Hearings are required prior to the issuance of a dam permit; the local county board is required to have a special meeting to determine whether the public interest would be best served by the dam. Municipalities are authorized to acquire, construct or maintain dams across lakes or streams adjoining or within municipal limits.[16] It can be inferred that municipalities can regulate the construction or maintenance of dams to minimize pollution. This chapter imposes civil liability for all damage to persons and property resulting from failure to comply with the standards. The Department is authorized to seek enforcement orders in the courts.[17]

The Department of Natural Resources is also empowered to review county ordinances, enacted pursuant to §59.961, Wisc. Stat. Ann. Such ordinances zone shorelands near the highwater mark of navigable waters. The ordinances are reviewed to ensure that they meet the environmental standards enumerated in §144.26(1) of the Navigable Waters Protection Law, which has as its purpose and policy water pollution reduction. Counties which do enact such zoning or ordinances would be able to control water pollution resulting from building site activities and other land uses.

The Director of the Department of Community and Environmental Development of King County, Washington, may regulate excavations, grading and earthwork construction.[18] The Director may issue orders, grant permits, and approve plans and specifications.[19] Section 6 prohibits grading without a permit; however, there are exceptions to this rule. The statute contains fairly specific operating conditions and standards for performance of cuts and fills.[20] The Director can enforce the ordinances by suspending or revoking the operating permit and by taking for satisfaction of enforcement costs, the permittee's bond.[21] Persons aggrieved by the Director's actions may appeal to the King County Board of Appeals.[22]

The purpose of this ordinance is to safeguard lives and property and to minimize adverse environmental effects within the country from construction activities.[23] The most important adverse environmental effect which can be minimized under the ordinance is soil erosion, caused by surface water runoff.[24] The ordinance does not specifically mention water pollution, although there is a provision governing the use of containing structures for fill deposited on tide or shorelands, which has been included in order to further the objective of minimizing adverse environmental effects including increased water pollution.[25] A second King County, Washington ordinance[26] empowers the County Department of Public Works and Transportation to establish and implement a surface water runoff policy in order to minimize the deterioration in water quality, to prevent the siltation of waterways, and to protect property owners from damage due to surface water runoff.[27] The Department is authorized to issue permits or grant approval for the following specified activities: grading, substantial development, flood control zones, subdivisions and short slot development and building permits. Permit and approval applicants must submit drainage plans to the Department prior to receiving approval.[28] The above specified activities are unlawful if undertaken without a permit.[29] Under the ordinance, the Department may require specific construction or maintenance to be undertaken and the posting of cash and surety bonds by persons constructing runoff retention or detention facilities or by government municipal corporations engaged in developing or improving lands.[30] The ordinance contains guidelines for drainage plans.[31] The Department should be able to enforce this ordinance by resorting to the county courts, but no enforcement mechanisms are specified.

When the statutes which have been described above are compared with one another, a few generalizations can be made. Generally, the body with regulatory responsibility has adequate powers for the promulgation of rules and regulations to set standards and procedures to meet specific needs. In the cases of all twelve statutes, the regulatory responsibility rests with an existing state or municipal agency; thus, the funding for these regulatory activities is taken care of under the normal budget and appropriation process of the agency. The statutes, in most cases, do not contain specific legislatively determined standards or guidelines nor do they contain schemes for ensuring the enforcement of rules and regulations or statutes.

In order to evaluate the statutes, they must be examined with the following questions in mind:

1. Do the statutes provide a proper place for the inclusion of experts in the regulatory scheme?

2. Does the purpose of the legislation make clear the legislatively determined need for a broad, regulatory scheme in order to assure the public health, safety and welfare?[32]

A positive answer to the first question indicates that the regulatory process should be able to deal with complex issues. A positive answer to the second question means that, in effectuating the purpose of the statute, compliance with the regulatory scheme may be sought through use of the police powers of the government. From the general grant of police powers, many additional specific powers may be inferred from the implications of the statute or from a reasonable and broad interpretation of the statute.

Two statutes lack provisions for the promulgation of rules and regulations. Under Wisconsin's Chapter on Town Highways,[33] the town superintendent of highways or, if there is no superintendent, the town board has the power to supervise the construction of town highways and bridges, under the direction of the County Highway Commission and the State Highway Commissioner.

Thus, in accord with State and county regulations, towns may set procedures and standards for construction of highways within their boundaries. However, under King County, Washington's Ordinance No. 2231, no provision for controlling construction of the State or county highways or private roadways exists.[34] The ordinance does not expressly grant to the Department of Public Works and Transportation the power to promulgate rules and regulations.

Since the Department has the power to issue permits and approvals for specified activities, and since the Department is to take care that the statutory guidelines for drainage plans are followed, it has been given a regulatory administrative function. In order to establish and implement a surface water runoff policy and to enforce it, the Department must have the power to make rules and regulations. The lack of express powers necessary to carry out the purpose of the law results in implied powers. Each of the other nine statutes[35] contain express provisions for the promulgation of rules and regulations.

Five[36] of the twelve statutes include construction standards or authorize the regulatory agency to set standards. Of the remaining seven statutes not expressly given the power to promulgate standards, four have a permit or licensing statutory provision. Broad discretion to regulate or control an activity or conduct investigations is the modern trend in licensing. Consequently, those provisions conferring licensing power on an agency would, as a necessary accompaniment, imply the power to promulgate standards.[37] The Michigan Department of Conservation, the Commissioner of the Massachusetts Department of Natural Resources, cities and towns (municipal corporations) in Virginia, and King County in Washington have the power to issue licenses or permits.[38] Standards could be inferred from the general statutory scheme for the remaining two statutes. The Commissioner of the Department of Transportation of New Jersey has control of State highways and highway construction;[39] the Michigan Department of Natural Resources regulates dams and dam construction.[40] The Commissioner and the Department have been granted jurisdiction and control over highways and dams, respectively. Standards would have to be implied to effectuate the purposes of these statutes.

King County has a liability insurance requirement which requires prospective permittees to assess building water runoff retention or detention facilities. This requirement appears to be a laudable safeguard to owners of property adjoining these facilities that prospective losses from mishaps will be met by the builder-permittee.[41] Similar provisions could be adopted elsewhere.

Enforcement schemes vary in the twelve statutes under discussion, from no mention of enforcement to authority to seek appropriate remedies in the local courts. None of the statutes' enforcement schemes are complete. In Michigan, the Department of Natural Resources may request the State Attorney General to prosecute persons constructing or permitting third persons to construct dams without a permit. The Department may seek prosecution of persons violating a provision of the act.[42] Both actions are misdemeanors usually punishable by fine. The Director can order that a dam be repaired or dismantled, if a dangerous condition exists.[43] The power to grant a permit pursuant to §11.422(2) of Michigan's statutes implies a power to suspend or revoke it. Persons aggrieved by an agency action are entitled to a hearing and a judicial review of the agency's final decision or order. There is no specified injunctive relief, but it could be implied. The (Michigan) Department of Conservation has the implied power to seek State prosecution for a misdemeanor of persons engaged in filling or modifying submerged Great Lakes' lands or waters without a permit.[44] This provision specifies a penalty of a fine not exceeding $1000 per violation and/or imprisonment for a term not exceeding one year.[45] Unlike the enforcement provisions for the Department of Natural Resources, there is no section making the violation of any statute provision a misdemeanor. As in the previous section, there is an implied power to revoke permits issued by the Department of Conservation. Hearings to determine fraud by permit applicants are held by the State Administrative Board. The power to issue orders is interpreted not to include stop work orders. As in the previous statute, the Director can make inspections.[46] Hearings and reviews of final departmental decisions are again implied.[47] Injunctive relief, though not express, could be implied as it is for the Department of Natural Resources. Each statute will be discussed in conjunction and comparison with Michigan's Great Lakes Submerged Lands Act, previously discussed.[48]

The State Commissioner of the Department of Transportation of New Jersey does not appear to have any express enforcement powers. Private property owners, whose potable well water supplies are contaminated by Department road construction are entitled to compensation from the Commissioner for the procurement of a substitute water supply or for the construction costs of a new well. The Commissioner is granted a right of entry.[49] There are also provisions providing for criminal prosecution and equitable remedies. The Department has complete control of construction when it executes and performs as an independent contractor.[50] The provisions pertaining to the Department as an independent contractor provide no public, private or agency civil remedies, and there are no prohibited acts.

The Public Service Commission of North Dakota has the express power to seek an injunction or other suitable equitable relief in enforcing its rules, regulations and statutory standards.[51] Persons aggrieved by the Commission's actions are entitled to a hearing; appeals from final decisions are made in the District Court.[52] There are no public or private remedy provisions. There is a prohibition against railroad companies failing to maintain or construct crossings and fences, which is a misdemeanor subject to a fine of between twenty-five and one-hundred dollars per violation.[53] The Commission has an implied power to make inspections, since this would be necessary to the regulatory scheme.

In Massachusetts, the Department of Natural Resources acting through the Commissioner may enforce the act by injunctive or other equitable relief. The State Attorney General, a city or town, or the owner of property affected by the activity regulated may seek to enjoin violations of the act.[54] This provision, unlike any other previously discussed, gives private property owners a civil cause of action, in addition to common law relief. Cities and towns may act on the public's behalf to enforce the act. The Department may issue final orders, which are subject to enforcement by the courts.

Section 40 prohibits the removal, filling, dredging or altering of any bank, wetland, or beach without an approval issued from the Department.[55] Persons are prohibited from throwing, discharging, or placing waste materials in State waters in violation of the Massachusetts Clean Water Act;[56] Section 42 of the Clean Water Act prescribes fines and/or imprisonment for persons: discharging wastes, violating any act provision, violating any regulation or order, and making any false statement. Such violations are misdemeanors.

The West Virginia State Highway Commissioner of the State Road System is empowered to seek any appropriate legal or equitable remedy in enforcing rules and regulations formulated to abate construction-related pollution.[57] Absent any provisions in the act, persons aggrieved by agency action are entitled to a hearing and to judicial review of final decisions.[58] The Commissioner has the implied power to inspect roads and airports which would aid in the regulatory scheme. No violations are set out; there are no penalties and no private or public remedies.

Municipal corporations, cities, and towns in Virginia have powers granted under the State constitution and as specified in the general laws. They also possess certain incidental and essential powers. Cities and towns have the power to impose fines of up to a maximum of $1000 and/or to impose imprisonment terms of up to one year for violations of ordinances.[59] Municipal governments may seek equitable relief to prevent continuing violations of ordinances[60] through enforcement of the statewide building code.[61] Cities and towns have the historical inherent power to define and abate nuisances.[62] They can make inspections where it is necessary to effectuate a constitutionally valid regulatory scheme.

Cities and towns have the express power to prevent water pollution.[63] Counties and municipalities can regulate zoning by ordinance.[64] Municipal corporations, towns, and counties have the essential power to sue and be sued.[65] Given the fact that cities, towns, and municipalities may pass ordinances, prescribe penalties, seek equitable relief and sue and be sued, they could specify in more detail their own remedies or public remedies for the enforcement of regulations to prevent the pollution of water supplies, to control construction, to prevent construction-related pollution of water supplies, or to enforce regulations governing any other construction activity which could cause point or nonpoint source water pollution.

In Wisconsin, the Department of Natural Resources may order the owner or person in charge of a bridge or dam to make alterations or repairs necessary to place the structure in compliance with the act.[66] The Department may inspect claims and, if found unsafe or not in compliance, can cause water to be drawn off the dam to prevent mishaps. An initial complaint may be filed by any executive officer of a city, town, or village,[67] but the Department can make inspections without a complaint being filed. Private citizens or the State may seek to enjoin the construction or maintenance of a dam that is in violation of the provisions of the act.[68]

Section 31.2G imposes civil liability for all injury to persons or to property resulting from failure to comply with standards outlined in 31.18(i). Judgments against the owner are liens on the dam or bridge in question.[69] Presumably, the Department can revoke a permit issued for the construction, operation and maintenance of a dam for violation of permit conditions and statutory regulations, orders, and standards. Since the Department issues standards and promulgates regulations, it can be inferred that it also has the power to seek injunctive relief. The Department is not given the power to prescribe civil or criminal penalties for provision violation. The statutory scheme is dependent on injunctions and civil damage actions and has no penalties for statute violations.

In Wisconsin, where counties have the power to enact zoning ordinances for shorelands near the highwater mark, enforcement powers are among the general powers given counties of the State.[70] Counties have the necessary powers as corporate bodies to sue and be sued and to pass ordinances.[71] Section 59.025 states that in addition to the powers granted counties, they are to have the organizational ability and authority in favor of rights and privileges to organize and administer county functions. Counties may require permits with specified conditions attached. Counties, out of implication, must be able to prescribe penalties for violation of ordinances and to seek injunctive relief against ordinance violators.[72] Provisions may be enacted which will allow private citizens to initiate enforcement proceedings or legal actions. Persons aggrieved by a decision of the county zoning authority may be heard by the County Board of Adjustment.[73] Counties also have the general police power to define and abate nuisances.[74] Counties in Wisconsin have the power to prescribe by ordinance, adequate enforcement measures which could include: provisions for civil damages to property owners, citizen complaint investigation, civil and criminal penalties, equitable relief and administrative sanctions.[75]

The Director of the King County, Washington Department of Community and Environmental Development, in enforcing the grading ordinance may abate conditions violating the ordinance in a civil action. Stop work orders, and forfeiture to the county of surety or cash bonds are actions that may be taken.[76] The Director may revoke or suspend a grading permittee's operating permit.[77] Civil penalties for ordinance violation are provided.[78] A violation of an ordinance provision is a misdemeanor. Each day a violation exists counts as a separate offense. No fines or periods of imprisonment for convicted violators are specified. There are no public or private remedies or special complaint procedures. Persons who are aggrieved by the Department's actions are entitled to a hearing by the King County Board of Appeals.[79]

The King County, Washington Department of Public Works and Transportation is charged with administering Ordinance No. 2231. The ordinance establishes a surface water runoff policy, and the Department is given the power to issue permits and approve specified activities and plans, although it has no specified enforcement powers.[80] Consequently, the Department's powers are implied from the statutory scheme and are inferred as delegated by the county legislative body. Counties are authorized to carry on county affairs;[81] they have the necessary powers to sue and be sued and to pass ordinances and resolutions.[82] By implication, they have the power to prescribe fines, periods of imprisonment, and civil remedies for infractions or violations of their ordinances.[83] They also have the police power to abate public nuisances and in all likelihood, have the power to suspend or revoke permits and to withdraw approvals. King County could enact ordinances specifying civil damage remedies, civil and criminal penalties, and public remedies to accompany this ordinance.

STATUTES NOT CONTROLLING WATER POLLUTION

These statutes either authorize a state or local administrative agency or a local governmental entity to construct specified structures or to regulate construction of such. They do not make provisions for an entity to adopt rules, regulations, standards, or methods which will reduce or abate water pollution from point or nonpoint construction sources. Though, if an agency or entity has the power to regulate construction by imposing rules, standards, regulations or methods, or by undertaking the construction itself, that agency or entity, if it desires, could formulate and enforce rules, regulations, standards and methods for the additional purpose of protecting the public trust in state waters by reducing or eliminating water pollution. These agencies or entities could use their power to regulate construction in a manner which would reduce or eliminate construction activity runoff from point or nonpoint sources. The following statutes have been organized according to the type of construction activity authorized or regulated. The activities are briefly compared with each other within each type of construction subgroup.

CONSTRUCTION OF ROADS, HIGHWAYS, STREETS AND BRIDGES

This category has the most entries. The majority concern an agency's or logal government entity's power to regulate construction.

Statutes Giving Agencies or Local Government Entities the Power to Regulate Construction

In Hawaii, the Director of the Department of Transportation[85] has the power to promulgate specifications, standards and procedures for constructing streets, roads and driveways. A performance bond of those persons doing contract work for State highway projects may be required. The Director may issue special permits to dig up State highways or to persons laying service facilities. Presumably, the power to promulgate rules and regulations and to issue orders is consonant with executing the office's duties. The act includes specifications for the excavation and the backfilling of trenches. No penalties or other enforcement provisions are included. The powers to prescribe fines and imprisonments, to seek injunctions, to prescribe damages, liability, and to provide public or private remedies must be inferred. Persons aggrieved by Department acts are entitled to a hearing and judicial review of final decision.

The power to plan and supervise the construction, improvement and repair of State highways in Indiana was granted to its State Highway Commission.[86] The Commission has the power to promulgate rules and regulations and to enforce the provisions of the chapter.[87] There are no permit provisions. Like the Hawaii statute, there are no penalties or other enforcement provisions. No standards are mentioned in the act. It is inferred that the Commission has the necessary power to issue orders, to prescribe fines and imprisonments, to seek injunctions, to prescribe damages liability, and to provide public and private remedies. The State Administrative Procedure Code provides a right to a hearing and judicial review of final agency orders for parties aggrieved by agency action.[88]

The Kansas State Highway Commission has the power to supervise all construction and maintenance of roads (excluding most township roads), bridges and culverts.[89] The Commission may perform its own contracts. It may issue permits for installations in or on public highways. Similar to the Hawaii provision, Section 68404 empowers the Commission to devise construction and maintenance plans and specifications. The Commission also has the right of entry. The act specifies criminal penalties consisting of a fine and costs upon conviction for the misdemeanor of violating any provision of the statute.[90] No public or private remedies are provided, nor are there any provisions for private civil damage actions or for injunctions. Standards for construction and maintenance could be promulgated by the County Engineer.[91] Absent express provisions the Commission's power to issue orders, promulgate rules and regulations, seek injunctive relief, and prescribe public and private remedies has to be inferred from the legislative grant. Persons aggrieved by the Commission have the right to a hearing and judicial review. The New Jersey Commissioner of the Department of Transportation may adopt rules and regulations for the reconstruction or maintenance of State highways. This section has been analyzed in the previous discussion on construction statutes, authorizing the prevention of water pollution. The Commission may perform its own contracts; it has the right of entry, and may promulgate rules, regulations and specifications.[92] Unlike the Hawaii statute, this act does not grant authority to the Commissioner to issue permits. Administrative, public, private, criminal or civil remedies are absent as in the Hawaii statute. The Department's power to issue orders, prescribe penalties and public or private remedies could be inferred from the act's legislative scheme. Persons aggrieved by agency action have a right to a hearing and judicial review of final determinations.[93] Cities in New Jersey have the general power to control and regulate streets and may determine methods employed for the construction of curbs and sidewalks.[94] They may prescribe when the construction, repair or alteration of curbs and sidewalks is to be done at an abutting landowner's expense.[95] Cities have the essential powers to sue or be sued and to enact laws and ordinances.[96] They also have the incidental power to prescribe criminal and civil penalties for violations of their ordinances. They impliedly have the power to seek injunctive relief to enforce their ordinances. Although no penalties or administrative sanctions expressly exist, the power to regulate streets denotes a regulatory scheme with all the requisites considered necessary for its implementation. Given liberal interpretation, cities may enact appropriate legal and equitable remedies including public and private ones. Municipalities in New Jersey have the power to enact ordinances controlling construction on municipa streets and highways.[97] Municipalities also have the general police power to issue building permits and to enact housing codes.[98] By analogy, municipalities have the same essential, incidental and inherent (implied) powers as cities.

The county commissioners of counties in North Dakota have supervision over the construction and repair of county roads.[99] Standards for county and township roads are prescribed in the County Roads chapter.[100] The chapter prescribes penalties for nonconstruction activities, such as obstructing a highway or drainage ditch, or placing stones or rubbish on or near highway section lines.[101] The county commissioners have the power to prescribe fines and/or imprisonments for ordinance violation.[102] Since the commissioners have the power to regulate road construction and maintenance, they can promulgate rules, regulations and standards pursuant to the regulatory scheme. Impliedly, they may issue orders. A county has the essential powers to sue and be sued and to pass ordinances and resolutions.[103] Enforcement provisions for road construction and maintenance are lacking, but boards of county commissioners have the power to prescribe civil damage provisions, criminal and civil penalties, administrative enforcement provisions, and public or private remedies.

The West Virginia Commissioner of Highways, whose power to determine and enforce methods of construction best suited to reduce water pollution has been previously discussed, may promulgate standards, rules, and regulations and may use any appropriate legal or equitable enforcement remedy.[104] There are no private or public remedies. Persons aggrieved by the Commissioner's actions may obtain a hearing and judicial review of a final determination.[105]

The Utah State Road Commission may construct and maintain roads as well as regulate road construction and maintenance.[106] Like the Hawaii provision, there are no penalties or other enforcement provisions specified in the act. Considering the broad delegation of jurisdiction, the enforcement power could be inferred from the statutory scheme. The fact that the Commission has the power to promulgate rules and regulations and to promulgate plans and specifications tend to indicate that the Commission is to possess complete regulatory powers. Impliedly, it is able to issue orders, prescribe administrative sanctions, fines, and imprisonments as well as prescribe civil damage remedies and public remedies. Persons aggrieved by actions of the Commission have a right to a hearing and to judicial review of final agency decisions.[107]

Municipalities, cities and towns in Virginia have the power to adopt necessary regulations to prevent pollution of their water supplies.[108] They also have the power to regulate construction.[109] By implication, municipalities, cities and towns may regulate construction-related pollution of water supplies. Since the powers of local governments have been explained in the previous section, little detail is necessary here. They have all the general powers necessary to prescribe civil and criminal penalties and to prescribe damages liability for pollution. They could also promulgate administrative enforcement procedures; ordinances may provide public or private remedies. Consequently municipalities, cities, and towns have full enforcement powers, although details are not given in the general laws regarding construction-related pollution prevention.

In Wisconsin, the Town Superindendent of Highways or the Town Board and the County Highway Commissioner have the power to supervise the construction and repair of town and county highways and bridges.[110] The Wisconsin State Highway Commission can prescribe specifications for the maintenance and design of state roads.[111] Cities and towns have implied power to promulgate rules and regulations for such construction and repair. No other powers are given expressly, but the local governmental units, counties, and towns, have the necessary general powers to expand the administration and enforcement provisions for road construction and repair supervision. Towns and counties are corporate bodies with the powers to sue and be sued, and to make laws and ordinances.[112] They have the police power to abate public nuisances. They have the implied power to prescribe fines and imprisonments for the violation of ordinances; they can probably seek injunctions to enjoin ordinance violation.[113] Counties have the necessary powers to enact ordinances and adopt regulations establishing prohibited acts, penalties, damage provisions, special public and private remedies, and administrative remedies, which could constitute an adequate enforcement scheme in regulating construction.

Statutes Giving Agencies or Local Government Agencies the Power to Construct

In the state of Indiana, all cities and towns have the exclusive power to construct and to control the manner of construction and repair of streets, alleys, bridges, watercourses, sewers, drains, and public grounds within cities and towns.[114] No specific enforcement or administrative provisions are stated. It may be assumed that they have the power to promulgate rules, regulations, and standards since they have regulatory power. Other powers must be implied from the general powers given cities and towns. As municipalities, they have the essential powers to sue and be sued and to pass ordinances and resolutions. By necessary implication, cities and towns have the power to seek injunctive reliefs and to: imprison, fine, set forfeitures and damages liability for violations or infractions of their ordinances. The power to abate public nuisances is a police power possessed by cities and towns.[115] Cities and towns have implied and necessary powers to enact ordinances and adopt regulations establishing violations, penalties, damages liability, special public and private remedies, and administrative remedies, which could include mechanisms for adequate enforcement of provisions regulating construction.

In Michigan, the city councils of Fourth Class cities have the power to regulate the construction and repair of public streets, sidewalks and alleys.[116] Like the Indiana provision for cities and towns, no other powers or provisions for administration or enforcement are provided, but those general powers are reserved to cities with the exception of §103.2, which allows the city to charge adjacent premises and lots for construction or maintenance of crosswalks and sidewalks. Cities would, if necessary, be able to issue orders and promlugate rules, regulations and standards for such construction and maintenance, since they have the power to regulate. Cities may pass ordinances and resolutions and determine penalties for violations or fines not to exceed $500 and/or imprisonment not exceeding six months.[117] Costs may be accessed against ordinance violators. Cities are able to seek injunctive relief to enforce their ordinances: they have the police power to abate public nuisances charging the tortfeasor with costs and a penalty.[118] They also have the essential right to sue and be sued.[119] Fourth Class cities have the express, implied and necessary powers to enact ordinances and adopt regulations, establishing prohibited acts, penalties, damages liability, public and private remedies, and administrative remedies to adequately administer and enforce provisions regulating the construction of and repair of streets, sidewalks and alleys.

The construction of and supervision over streets, roads, highways, alleys, driveways, public improvements and public works in Kansas is under the jurisdiction of the Commissioners of Streets and Public Utilities for Second Class cities.[120] As with the Indiana provision for cities and towns, no administrative or enforcement provisions accompanied the grant, necessitating referral to the general powers of Second Class cities to enlarge a statutory scheme.

A city can regulate an activity which it has the power to perform. Therefore, general supervision means cities can promulgate rules, regulations, orders, and standards for construction and maintenance. They may enact ordinances for their own affairs and may prescribe fines, imprisonments, and forfeitures for the violation of these ordinances.[121] Cities have the corporate power to sue and be sued and the implied power to seek injunctive relief to enforce their ordinances; they have the police power to abate public nuisances.[122] These powers are sufficient for cities to establish by ordinance, administrative and enforcement provisions which include: civil damages liability, prohibition and violation penalties, public and private remedies, and administrative remedies.

The Commissioner of Highways of the West Virginia State Road Commission has jurisdiction of publicly-owned state roads and is responsible for rules and regulations for street maintenance and construction.[123] Where the grant for agency jurisdiction is as broad as it is here, regulation necessitates the implied power to promulgate rules, regulations, and standards.[124] Criminal penalties are prescribed for a violation. It is a misdemeanor conviction which is punishable by a fine ranging from $10 to $100 or by imprisonment for five to thirty days or by both.[125] Other administrative or enforcement provisions include the power to issue orders, to specify civil damages liability, to seek injunctive relief, to prescribe public and private remedies, and to take administrative agency remedies. Presumably, persons aggrieved by the Commissioner's actions may be entitled to a hearing and to judicial review of an agency's final decision. Under a reasonable and liberal interpretation of this broad state legislation, the Commissioner impliedly is granted the power to issue orders, seek equitable relief, prescribe procedures for administrative agency actions for enforcement, and to prescribe public and private remedies.

The Virginia Commissioner of the State Highway

Transportation Commission has the plenary power to construct, improve, and maintain roads in the state highway system.[126] This means that all contracts for the construction, maintenance and repair of roads in the State highway system or in secondary State highway system are administered by the Commissioner. In improving State roads, the Commissioner may, in the course of changing or eliminating a public railroad crossing, agree with the railroad on the terms, costs and manner of construction for the change, subject to review by the Virginia State Corporation Commission.[127]

The Commissioner may approve plans, specifications, and methods for construction, whenever a road of a city or town in the State highway system crosses a railroad, is projected across a railroad, is changed to cross a railroad, or crosses a railroad by an underpass or overpass in need of relocation, alteration or repair. In the event the Commissioner and the Railroad Company cannot agree, the plans are subject to review by the State Corporation Commission.[128]

The Commissioner of the State Highway and Transportation Commission has the power to promulgate rules and regulations.[129] The Commissioner may regulate and impose restrictions on the use and occupation of streets and roads, and may likewise regulate the construction, operation, and maintenance of works along State roads and highways. No other powers for administration are given. The State Corporation Commission has enforcement authority if violations of the Public Services Companies chapter occur. Any person aggrieved by an action of a public service company may file a complaint with the Corporation Commission. The Commission may enjoin violations. Railroads and certain other public service companies may be fined up to $500 for violations of the chapter.[130] Persons aggrieved by Commission action would most likely be able to obtain a judicial review of any final agency determination.[131] By necessary implication, the Commissioner has the power to promulgate standards, issue orders, and enforce statutory and administrative provisions, due to the broad delegation of power. The Commission could prescribe regulations and criminal and civil penalties, public and private remedies, and administrative agency action remedies.

In Minnesota, the Road Authority of any town, city, village or borough may appropriate or expend monies for the improvement and maintenance of roads, bridges, or ferries beyond their boundaries and leading into such town, city, village or borough. They are also authorized to plan for the establishment, maintenance, and improvement of controlled access highways. Counties and towns are authorized to enter into road construction contract.[132] No specific provisions appear for villages and boroughs other than those general powers provided by law. Villages are considered to have the same powers as towns; boroughs as political entities, for these purposes, are considered to have the same powers as counties. Towns, cities, and counties are corporate bodies with the essential powers to sue and be sued and to enact ordinances. Counties and towns are given the express authority to pass ordinances or resolutions for road construction. The powers of road authorities over highways and roads are general. Absent administrative and enforcement provisions essential for achieving regulation of and construction of streets and highways, powers are inferred and implied from the broad legislation and from the general powers of respective towns, cities, counties, villages, and boroughs. No other penalty provisions are prescribed. Local road authorities by implication have the power to issue rules, regulations, and orders, to promulgate standards, and to prescribe by regulation various provisions for civil damages liability, penalties, and public and private remedies to enforce the construction and maintenance provisions.

Since State and local administrative agencies and local governmental entities have the power to regulate road, street, highway, alley, and bridge construction or to perform the construction rules, regulations, standards and orders, they could include rules, regulations, standards, and orders within the regulatory scheme to control point or nonpoint source water pollution.

BUILDING CODE PROVISIONS

All building code provisions are an exercise of the government police power for protecting the public health, welfare and safety. The City of Bellevue in Washington has adopted with amendments, the Uniform Building Code and incorporated within it, provisions to regulate the clearing, grading, and filling of lands. The building official of the Building Department has the power to enforce all provisions of the code.[133] The Department has jurisdiction over all construction, the quality of construction materials for, the uses and occupations of, the location of, and the maintenance of buildings, structures and certain equipment to be placed therein.[134] The official also has the power to make inspections and has an implied essential power to issue rules, regulations, and standards.[135] The building official may order work stopped or may order a particular use discontinued.[136] The official is empowered to issue permits and certificates of occupancy and to approve plans and specifications.[137] There are several prohibition sections. No building or structure can be used without a certificate of occupancy.[138] It is unlawful for anyone to construct, enlarge, repair, improve, convert or demolish buildings or structures contrary to any code provisions.[139] The Uniform Building Code contains detailed standards and regulations concerning occupancy, fire zones, types of construction, the quality of design and materials, fire protection and public streets.[140]

Buildings and structures defined [in section 203] as unsafe, are declared a public nuisance and subject to abatement.[141] The cost of enforcement may be recovered from the violator by the Department.[142] The building official is authorized to set permit fees to reflect the value of the building or structure constructed, altered, removed or repaired.[143] Persons, firms or corporations violating any provision of the code will be charged with a misdemeanor, punishable upon conviction with a fine not exceeding $350 or by imprisonment not exceeding ninety days or both.[144] Each day such violation exists constitutes a separate offense.[145] Fines are recoverable through civil suit by the city.[146] Any person, firm or corporation aiding and abetting a violator or committing an act or omitting an act to procure violation is guilty of a misdemeanor.[147]

Amendments to the adopted Uniform Building Code make minor changes and additions.[148] Any person violating a provision is liable to the city for a civil penalty of not less than $25 and not more than $350 per day for each day the violation exists.[149] Persons are prohibited from making any changes in the surface of any lands by grading, excavating or by removing natural topsoils, trees, or vegetative coverings without a permit.[150] The building official is authorized to issue special notice to owners or persons in control of property, to eliminate within a specified time, any hazards to life and limb, dangers to property or hazards adversely affecting the use of any watercourse, including siltation and sedimentation.[151] The official has the power to inspect all grading projects for which a permit was issued and upon completion of a grading project, the permittees may be required to submit a final report.[152] Additional regulations are specified in the amendments for cuts, fills, drainage facilities and terracing.[153] Not included within the code are provisions for special civil damages liability, for private remedies, or for citizen complaint procedures.[154] Despite the omissions, the administrative and enforcement apparatus makes this a very effective local ordinance.

King County, Washington also adopted the Uniform Building Code which contains the same provisions previously discussed for the City of Bellevue, Washington, but excluded any amendments and provisions for regulation and control of grading, filling, excavating and filling lands. The county added its own amendments to the code. Section 2 of the Uniform Building Code is amended to create the Building Code Advisory and Appeals Board, which is charged with determining the suitability of alternate materials and methods of construction and to make reasonable interpretations of the code to resolve disputes.[155] Section 2 of the code is amended by section 3, which makes it unlawful for any person, firm, or corporation to construct, alter, remove, improve, demolish, equip, use or maintain any building or structure in the county "or cause the same to be done" in violation of the code.[156] Persons, firms, or corporations violating or procuring violation of code provisions forfeit a cumulative civil penalty of $3 per day of violation, plus costs of enforcement to the Building Division.[157] Section 3 makes any person violating any code provisions guilty of a misdemeanor punishable by a fine or imprisonment for not more than 90 days, or both.[158] King County, in addition to accepting the Uniform Building Code, adopted the Uniform Housing Code.[159]

The Building Department enforces the Uniform Housing Code.[160] The official has the power to make inspections, issue permits, and cause a building or structure to be repaired, sold or demolished.[161] The Department has jurisdiction over all buildings or portions of buildings used for human occupation or habitation.[162] It applies to the new portions of buildings and to buildings which are moved.[163] Persons are prohibited from constructing, repairing, demolishing or altering a building without a permit; no one may construct, alter, repair, improve, demolish, equip, occupy, use or maintain or cause the same to be done to any building or premise in violation of code provisions.[164] The code contains space and occupancy standards in Sections 501 and 505. No express powers to promulgate standards and to issue rules and regulations are granted; these powers are essential to the police power regulatory scheme and must be implied. Section 201(c) makes owners of a building(s) liable to persons suffering damages on account of the breach of duties imposed by the codes. The Department is entitled to recover the costs of demolition or repair; the building official submits a report request to the county legislative body which, upon holding a hearing, may order a special assessment to be collected like regular county taxes, or may make the charge a personal obligation on the property owner involved.[165] Section 1502 enables the legislative body to establish a Repair and Demolition Fund, a revolving fund which is to be taken from County revenues. The Housing Advisory and Appeals Board hears appeals concerning Department actions and, although judicial review is not mentioned, a right to limited judicial review of final Department determinations probably exists.[166] Failure to obey a lawful order of the building official or of the Housing Advisory and Appeals Board and violation of Section 204, prohibiting construction alteration, maintenance or use of a building or premises in violation of the code are misdemeanors punishable by a fine or imprisonment or both.[167] As with the Uniform Building Code, the Uniform Housing Code as amended appears to provide reasonably adequate administration and enforcement of the regulatory scheme.

In Hawaii, the Board of Supervisors in each county has the power to regulate building construction by ordinance.[168] The chief executive officer of each county can take charge of all county road work and other public construction.[169] The Board has the power to conduct inspections, to condemn structures, and to prescribe penalties of fines and court costs for violations of its ordinances.[170] Since the Board has the power to regulate, it has the implied power to issue orders and promulgate rules, regulations, and standards. A county as a local government entity and as a municipal corporation has the power to sue and be sued. Impliedly, a county would be able to seek equitable relief. Absent are provisions for civil damages liability, public and private remedies, and administrative action procedures and the express power to promulgate rules, regulations, orders and standards. Section 62-34 gives County Boards of Supervisors the power to enforce all necessary ordinances covering the inspection of buildings and the condemnation of unsafe structures. They may prescribe penalties for ordinance violation, including a fine of up to $500 and court costs; offenders may be imprisoned until such fines are payed.[171] State administrative procedures apply to counties giving persons aggrieved by Commissioner action the right to a hearing and judicial review of final agency determinations.[172] Enough of a regulatory framework is present, which when supplemented by general county powers could provide for adequate enforcement and administration.

In Virginia, the State Board of Housing is directed to adopt a Uniform Statewide Building Code which will supercede all local government building codes.[173] Local governments are responsible for code enforcement.[174] The State Board is given standards or guidelines to be used in formulating a building code.[175] Inspections are to be conducted by local building departments.[176] The State Board of Housing has the power to formulate policies and goals and to implement and administer the code.[177] The Executive Director is charged with formulating rules and regulations.[178] The Director may receive Federal grants for the State.[179] Section 36-105 authorizes building fees to be levied to offset the cost of enforcement. Section 36-99 requires that all buildings be constructed to comply with the State building code. Anyone who violates any provisions of the code shall be guilty of a misdemeanor and subject, upon conviction, to a fine not exceeding $500.[180] Presumably the State Board can promulgate rules and regulations, which will supply missing administrative and enforcement provisions, such as administritive enforcement actions, penalties, summary agency remedies, public and private remedies, civil damages liability, and injunctive relief. Local governments actually have the general powers necessary to supply any missing administrative or enforcement provision. Absent express hearing and appeals provisions, the provisions of the Virginia Administrative Agencies Act entitle persons aggrieved by the local building agency or the State Board to a hearing and to judicial review of final agency action.[181]

The governing body of any Virginia county, city, or municipality may adopt and enforce an ordinance to assure orderly subdivision and development of land.[182] The ordinance may include regulations for adequate drainage and flood control and may include regulations for street improvements and plats.[183] There are no accompanying provisions for civil damages liability, public remedies, private remedies, agency actions or additional powers to inspect, promulgate standards, issue permits or hold hearings. Provisions governing the general powers of cities and towns can be supplied. Cities and towns have the power to abate nuisances and the power to seek injunctions for continuing code violations.[184] They also have the power to prescribe penalties of fines and imprisonments for ordinance violations.[185] It can be inferred that cities and towns formulate rules and standards for their ordinances.[186] Cities and towns may enact ordinances and resolutions or may promlulgate new rules and regulations to enact or incorporate missing administrative and enforcement provisons.

In West Virginia, municipalities have the general authority to regulate the construction of buildings.[187] They may require permits.[188] They have the power to pass ordinances, issue orders, adopt bylaws, promulgate rules and regulations, prescribe fines, forfeitures, imprisonments (not to exceed thirty days), and to maintain an action at law or equity to enforce their ordinances.[189] Impliedly, municipalities may promulgate construction standards. Persons adversely affected by a final municipal determination are entitled to de novo review in the Circuit Court or other court having jursidiction in the county.[190] Section 8-12-5 enables municipalities to abate public nuisances. West Virginia is a home rule state, where general laws act as a limitation on municipal powers. Funding provisions are not specified, but municipalities have the power to spend necessary sums for local government purposes; they may assess taxes, borrow monies and issue bonds, subject to constitutional and general law limitations.[191] Since municipalities have these broad general powers, they could enact ordinances expressly providing the exercise of these powers to regulate building construction. They could also enact ordinances for provisions such as civil damages liability, administrative action procedures, private and public remedies, and civil penalties. Municipalities have the powers necessary to enact a comprehensive system of provisions for the administration and enforcement of a building construction regulatory scheme.

California's Subdivision Map Act previously discussed with other construction-related statutes which controlled water pollution should also be included here, since it authorizes cities and special districts to regulate the design and improvement of subdivisions.[192] In North Dakota, Township Boards of Supervisors are authorized to establish zoning districts to regulate construction.[193] The powers that zoning districts have originate with the Board. The Boards may collect taxes and incur debts, promulgate rules and regulations (in accordance with a comprehensive plan), take any appropriate action against violators of zoning regulations and rules.[194] Regulations do not take effect until public hearings are held. No penalties, civil damages liability provisions, public or private remedies, civil or criminal penalties or administrative procedures are included. The broad enforcement power given the Board "to take any appropriate action" would include the promulgation of ordinances and regulations providing injunctive relief and any of the above-mentioned remedies, suitable for a workable comprehensive regulatory scheme.

MISCELLANEOUS

The last group of statutes to be discussed covers a variety of topics which are not covered by any of the previous categories. These seventeen sections give a state or local government entity or administrative agency the power to construct or the power to regulate the construction of railroad crossings, dams, airports, grades, landfills, earthworks and electric lines. All the powers necessary for effective enforcement and administration such as: 1) the power to make rules, regulations and standards; 2) the power to issue permits; 3) the power to make inspections; 4) the power to issue orders; 5) the power to raise and expend administration costs; 6) the power to prescribe civil and criminal penalties; 7) the power to prescribe public and private remedies; 8) the power to seek injunctive relief; 9) the power to prescribe statute violation as civil damage liability; 10) the power to provide for hearings; and 11) the power to use straight forward administrative extrajudicial sections to enforce the statute, though not expressly included in these statutes. At best, only a few of these provisions are specified in any one statute. Consequently, we have taken a liberal interpretation of these provisions in assuming that where broad regulatory power is granted, essential powers were intended to be included by implication, in order to enable the entity or agency to carry out its functions. All of these statutes can be used to regulate and control point or nonpoint source water pollution from construction based on a given agency or local entity's broad power to regulate and control construction, whether or not the actual construction is done by the agency or by contractors. The general powers of cities, counties, towns, villages and municipalities is not explained as was done in previous discussions.

Regulation of Digging Up Public Ways

Village councils in Michigan may prohibit all openings in and removals of earth, from public streets, except as prescribed by them.[195] Permits for, or conditions attached to permission to dig could contain regulations to be followed in digging (digging for the purpose of repair, construction or removal of utility lines, streets, and conduits), which would reduce resultant runoff. Village councils have the power to make public improvements and to make special assessments.[196] These councils could follow their own rules and regulations to prevent construction runoff when they undertake their own improvement work. They have the power to abate nuisances and to adopt ordinances.[197] Impliedly, they can prescribe and administer penalties in their ordinances regulating digging on streets. There are no civil or criminal penalties or remedies expressly prescribed, nor are there any administrative or other regulatory powers.

In Massachusetts, the State Department of Public Works issues permits to public utility companies to dig up, open, or obstruct state highways.[198] The permittee must replace the materials and resurface the areas broken or altered.[199] The Department may require a bond from the permittee to cover any damages.[200] Cities and towns may contribute agreed upon amounts of money to the Department.[201] The Department may receive appropriations and levy taxes.[202] It has a duty to maintain, repair, and construct state highways.[203] Persons are prohibited from digging up a state highway without a permit. Violation of the prohibition is a misdemeanor; no penalties are specified. Aggrieved parties are entitled to a hearing and judicial review of final decisions.[204] A public remedy is provided whereby ten or more persons may intervene in an adjudication proceeding, where damage to the environment is threatened.[205]

Railroad-Related Construction

In Michigan, the common council of a city or village may establish regulations and rules for the construction of drains, sewers, and reservoirs by street railroads.[206] Street railroads are also subject to regulation by ordinance by cities and villages.[207] No enforcement or administrative provisions are expressly included. Cities and villages have implied power to prescribe penalties for their ordinances and to enforce them.[208] They also have the essential power to use the courts.[209] Enforcement is possible by exercising these powers.

Boards of Commissioners in first class cities in Kansas have the power to direct the laying out and construction of railway tracks, turnouts, and switches.[210] They may require railroad companies to construct, complete, or repair viaducts over or tunnels under streets.[211] In the event that the city undertakes construction or repair of viaducts and tunnels, costs are to be assessed against railroad company property as a lien and may be taxes against that property.[212] Section 1903 provides that railroads, upon conviction of neglecting or refusing to construct or repair viaducts or tunnels to pay a fine of $100 each day the violation exists.[213] No other administrative or enforcement provisions are included.

In North Dakota, the Public Service Commission may require railroads to construct fences according to Commission guidelines; standards are provided within the chapter for the construction of railroad crossings by railroad companies.[214] Railroads are to restore nearby streams and watercourses to their former state or to a useful conditon after construction.[215] The Public Service Commission has the power to issue rules, regulations and orders to regulate railroads.[216] Violation of a Public Service Commission order is unlawful; a railroad's failure to construct or maintain crossings is punishable by a fine of from $25 to $100.[217] The Commission's express powers are not complete, but since it can regulate and since there are penalties, it has such other powers as are necessary. The enforcement powers included are sketchy at best.

Regulation of Dam Construction

The Michigan Department of Natural Resources has the power to approve and to issue permits for the construction of dams.[218] The Department's control of dam construction-related water pollution has been previously discussed in the section on construction-related water pollution statutes.[219] The Director of the Department has the power to order the owner of a dam to repair or remove such dam if a hazardous condition is determined to exist.[220] A dam construction permittee is required to petition the Board of County Commissioners for a court established lake level and for an established special assessment district to maintain the lake level, if the dam has a head of five feet or more.[221] Violation of any chapter provision or of any lawful rule constitutes a misdemeanor.[222] Any person constructing or allowing another to construct on his land a dam without a permit is guilty of a misdemeanor.[223] No penalties are provided and the powers given the Department are incomplete; nevertheless, the Department could enact by rule or regulation the missing administrative and enforcement provisions. The State's Administrative Procedures Act provides for hearings and judicial review of final agency decisions.[224]

In Wisconsin, the Department of Natural Resources may promulgate orders, rules, and regulations for the methods of construction, operation, and maintenance of equipment to be used for dams and bridges over streams.[225] It also has the power to issue permits, conduct inspections, collect inspection fees, and authorize or undertake the dam operation, maintenance, and repair work itself.[226] Section 31.26 provides for owner liability for personal injury and property damage due to the owner's failure to comply with standards. The executive of a town or village may petition or request the Department to investigate unsafe dam or bridge conditions.[227] Private citizens may seek an injunction to abate private nuisance when a dam or bridge is in violation of this chapter.[228] Persons who violate the lawful orders of the Department in regard to mill dams or bridges shall forfeit $500, recoverable by the Department in a civil action.[229] Public hearings are to be held before permits are granted. No criminal penalties are provided. These provisions have been discussed in the section on water pollution control statutes.

The Department of Public Works and Transportation of King County, Washington, which administers surface water runoff policy, issues permits to persons constructing runoff detention and retention facilities used to prevent flooding.[230] (A more extensive description of the Department's powers can be found in the discussion on controlling construction-related water pollution.)[231] The Director of the Department must approve drainage plans submitted with the permit application, and may require a permittee to post cash or surety, construction and maintenance bonds.[232] By the power implied under the regulatory scheme, the Director could impose conditions on permit issuance, requiring compliance with standards, rules, and regulations. No other administrative provisions are given, and there are no penalties for statute violation. There are, in effect, no penalties, damages liability provisions, public or private remedies.

In Virginia, a riparian owner may build a dam, mill, or other works, such as machines, factories, or "engines useful to the public" on a watercourse, if the Circuit Court of the county grants permission.[233] The Court appoints five local freeholders to act as Commissioners, reporting to the Court upon the adverse environmental impact on adjoining lands not owned by the applicant, for additional lands needed for construction, and for lands to be injured by the construction.[234] If the Circuit Court decides to grant leave, based on the report and other factors, it may impose special conditions as may be appropriate upon the leave to build the facility.[235] These conditions could be framed to reduce or eliminate construction-related water pollution. The Court can issue orders and enforce those orders by using contempt power. There are no provisions for review, but such review is probably to be had from the next highest court with jurisdiction. These provisions appear to represent the persistence of an outmoded practice, because an administrative agency more cognizant of environmental matters can develop the expertise to make an intelligent determination. An administrative agency could combine legislative, judicial and executive functions.

The Michigan Department of Conservation has the power to issue permits for the construction of artificial waterways which will connect with any of the Great Lakes.[236] The State's Department of Health may object to the Department of Conservation's decision to grant a permit. The Department of Conservation must find that the project will not injure the public trust in State waters before granting the permit.[237] The Department of Conservation can issue rules, regulations and orders.[238] Persons are prohibited from engaging in any construction activity concerned with building a waterway for connection with any of the Great Lakes without a permit or approval.[239] Persons who engage in such activities as dredging, excavating, filling lands or modifying lands or waters, without a permit are guilty of a misdemeanor and upon conviction subject to a fine of up to $1000, imprisonment for not more than one year, or both per offense.[240] There are no private or public remedies.

Construction of Airports

The Virginia Airport Authority has the power to construct and to permit the construction of industrial, commercial and recreational facilities near airports.[241] It may impose such conditions on the construction as it deems proper.[242] The Authority also has the power to improve, maintain, regulate and operate airports and air navigation facilties.[243] It can establish and maintain airports in and over state waters.[244] The Authority has the following regulatory powers: to promulgate rules and regulations, exercise the power of eminent domain, enter properties, make contracts, issue revenue bonds, and issue revenue refunding bonds.[245] Since the Authority has the power to regulate and impose conditions, its regulations and conditions could be framed to control construction activities to prevent or reduce construction activities to prevent or reduce construction-related water pollution. There are no enforcement provisions expressly provided, but the Authority could promulgate rules, regulations, and procedures specifying such provisions.

The West Virginia Commissioner of Highways for the State Roads Sytem has the power to supervise the construction of airports.[246] The Commissioner's powers have previously been discussed in the section on construction statutes directly controlling water pollution.[247] Included in the powers is the right to promulgate rules and regulations and to seek any appropriate legal or equitable remedy in enforcing the provisions of this chapter.[248]

Regulation of Dredging and Land Fill Operatings Bordering Waters or Beaches

The Beach Commission of any New Jersey municipality has the power to manage and control the construction, maintenance, and use of beaches.[249] The Commission has the power to prescribe and enforce regulations, orders and penalties.[250] Funding is provided from municipal appropriations and from collections for the beach fund.[251] Many provisions not expressly included could be implied from the general powers municipalities possess. Municipalities may pass ordinances and may sue and be sued; they can regulate building construction and issue building permits as an adjunct to exercise of the police power.[252] The Beach Commission could impliedly do all of the above.

The Commissioner of the Massachusetts Department of Natural Resources has the power to adopt regulations controlling or prohibiting the dredging, filling, recovering and altering or polluting of state wetlands.[253] This statute has been previously discussed in the section on construction statutes directly controlling water pollution from construction.[254] Public hearings are held prior to regulation adoption, and the town or city councils of the jurisdiction in which the land is located must approve the regulation before adoption.[255] The Department has the power to issue final orders.[256] At the initiation of the State Attorney General, the Commissioner of the Department, the executive officer or district attorney of a city or town, or an owner of property affected by the activity, or any court having jurisdiction may restrain statute violations and may issue orders.[257] Persons aggrieved by the Commissioner of the Department or by the Natural Resource Board's failure to act, may seek equitable relief.[258] There are no civil or criminal penalty provisions. Persons aggrieved by an agency action are entitled to a hearing and to judicial review.[259]

The King County grading ordinance, previously discussed in the section on construction statutes directly controlling water pollution, gives the Director of the Building Division of the Department of Community and Environmental Development the power to issue grading, excavation, and earthworks construction permits.[260] Applicants for permits must submit plans and specifications for approval, must pay permit fees, and must obtain case or surety and operating bonds. Applicants must also obtain liability insurance.[261] Section 11 contains detailed standards for cuts and fills. Appeals from Department action are made to the King County Board of Appeals.[262] Section 20 prescribes a civil penalty to be recovered by the Department for an ordinance violation constituting a public nuisance.[262] Violation of any ordinance provision is a misdemeanor but no penalty is specified.[264] This ordinance is a good example of a well-drafted regulatory scheme.

Laying of Electric Lines -- Construction Within Rights of Way

The Virginia State Corporation Commission, which has the power to regulate public service companies and administer all laws prescribed by the constitution for the regulation and control of corporations doing business in Virginia must approve the installation and construction of all electric transmission lines of 200 kilovolts or more.[265] The Commission can determine the best corridor or route to be taken in order to minimize adverse environmental impacts from the construction or installation of electric lines.[266] The Commission can place special conditions on its approval, which would minimize adverse environmental impacts.[267] The Commission has concurrent jurisdiction with courts of the Commonwealth to hear disputes or grievances involving public service companies, to make determinations, and to enforce penalties.[268] Persons or corporations aggrieved by a public service corporation's violation of any of the provisions of this act may petition the Commission to act as a court of record in hearing the allegations.[269] The Commission has the power to mandamus public service corporations.[270] Appeal from the actions of the Commission are taken by the State Supreme Court.[271] The Commission, due to its broad grant of power to regulate corporations, has the essential and necessary powers to issue rules, regulations, orders and standards.[272] Penalties are provided.

The construction of telegraph or telephone lines in a manner that endangers life or limb is unlawful and punishable as a misdemeanor by a fine of from $100 to $500.[273] Violation of any of the provisions in this chapter excepting section 56-462 is a misdemeanor punishable by a fine ranging from $10 to $500.[274] Most of the powers the Commission possesses are not express. The provision governing power line construction is one of many provisions by which the Commission can regulate construction done by public service companies. For example, the State Corporation Commission can review costs, plans and specifications, methods, and manner of construction for changing, altering, or rebuilding a railroad state highway grade crossing or overhead pass or underpass when the State Highway Commissioner and the railroad company which is to undertake the project cannot agree.[275] The Commission can review plans, costs, specification, methods, and manner of construction for changing, altering, or rebuilding a railroad/city or town highway grade crossing, an overhead pass, or an underpass, when the city or town authorities and the railroad company, who are to jointly undertake the project, cannot agree.[276] In both instances, the Commission is to issue an order deciding all matters or is to issue an order dismissing the proceedings brought by the town or city or by the State Highway Commission against the railroad company.[277] Public necessity and convenience is to be the basis for the Commissioner's decision.[278]

The governing body of any town, city or county in Virginia may enact an ordinance authorizing an officer or agency of such local governmental entity to issue permits for construction within right-of-way lines of any public roadways in its jurisidiction.[279] This provision is directed at regulating the construction of buildings and structures, driveways, signposts and curbs along roadways. Persons are prohibited from constructing anything within a roadway's right-of-way lines without a permit from the respective city or town's authorized officer or agency.[280] Violation of this provision is a misdemeanor punishable by a fine of from $25 to $100 for a first offense and by a fine of from $100 to $500 for a second offense.[281] There are no other accompanying provisions. Several elements are implied. The city or town will be able to collect permit fees to defray administration and enforcement costs. Since the agency or officer shall have the implied power to issue permits, they also have the power to regulate by promulgating rules, regulations, standards, and orders.[282] Since towns and cities have the essential powers to sue and be sued, and to pass ordinances and resolutions and since they (as municipal corporations) have the right to prescribe penalties for violations of their ordinances, they could pass additional ordinances providing for civil damages liability, public remedies, injunctive relief, civil penalties, private rights of action, inspections, hearings, and administrative processes to expand the statutory scheme.[283]

Each of the statutes or ordinances discussed gives a state or local government entity the power to construct or regulate the construction of various objects, structures or environments. In the first group, statutes directly controlling water pollution from construction-related activities were examined. The subsequent statutes controlled or regulated a particular type of construction activity without specifically mentioning water pollution control as an objective. Once an agency or entity has the power to regulate an activity, it could regulate that activity in a manner that reduces a detrimental environmental by-product of the activity. If an agency or entity has the power to regulate construction or control water pollution without any qualifications as to the type of water pollution to be reduced or abated, then nonpoint source water pollution is also meant to be controlled.

FOOTNOTES

BUILDING AND CONSTRUCTION

[1] Cal. Gov't. Code §§ 66411-66499.37 (West Supp. 1974).

[2] Mich. Stat. Ann. § 11.422(3)(1973).

[3] *Id.* at §§ 13.700(3)-13.700(15).

[4] *Id.*

[5] N.J. Stat. Ann. §§ 27:7-21, 27:21.1 (Supp. 1975).

[6] N.D. Cent. Code § 49-11-04 (1960).

[7] *Id.* at §§ 49-11-24, 49-11-25.

[8] Mass. Gen. Laws Ann. ch. 131, § 40-42 (1974).

[9] W. Va. Code Ann. § 17-4-31 (1974).

[10] *Id.* at § 17-2A-8 (23)(1974).

[11] Va. Code Ann. §§ 36-97 to 36-119 (Supp. 1975); 15.1-863 (1973)

[12] *Id.* at §§ 36-97 to 36-119 (Supp. 1975), § 15.1-905 (1973).

[13] Va. Code Ann. § 15.1-486 (Supp. 1975), § 15.1-905 (1973).

[14] Wis. Stat. Ann. §§ 31.02, 31.19 (1973).

[15] *Id.* at §§ 31.04, 31.36 (1973).

[16] *Id.* at § 31.06 (1973), *as amended*, (Supp. 1974).

[17] *Id.* at § 59.971 (Supp. 1974).

[18] King Co., Wash., Ordin. No. 1488 (1973).

[19] *Id.* at § 7

[20] *Id.* at §§ 8, 9.

[21] *Id.* at §§ 21, 15.

[22] *Id.* at § 22.

[23] *Id.* at § 2.

[24] *Id.* at § 11.

[25] *Id.* at § 13.

[26] King Co., Wash., Ordin. No. 2231 (1975).

[27] *Id.* at §§ 1, 3.

[28] *Id.* at § 1.

[29] Id. at § 3.

[30] Id. at § 7.

[31] Id. at §§ 4, 5.

[32] Dallas Sands Statutory Construction §§ 4.18, 4.19, 65.03 (4th Edit. 1972) [Hereinafter referred to as Sands]; Chester James Antieau, Municipal Corporations § 5.03 (1973) [Hereinafter referred to as Antieau].

[33] Wis. Stat. Ann. §§ 81.01(1), 83.01(7)(b), 84.07(1) (1957), *as amended*, (Supp. 1974).

[34] King Co., Wash., Ordin. No. 2231 (1975).

[35] *See* the analysis of each statute, supra.

[36] King Co., Wash., Ordin. No. 1488 (1973); Wis. Stat. Ann. § 31.01-31.06 (1973), *as amended*, (Supp. 1974); W.Va. Code Ann. § 17-2A-8(1), (2) (1974); N.D. Cent. Code §§ 49-11-04 to 49-11-06 (1969); Va. Code Ann. § 15.1-476 (1973).

[37] Sands, § 4.25.

[38] Mich. Stat. Ann. § 13.700 (15) (1973); Mass. Gen. Laws Ann. ch. 131, § 40 (1974); Va. Code Ann. §§ 15.1-906 (1973); King Co., Wash., Ordin. No. 2231, § 3 (1975).

[39] N.J. Stat. Ann. §§ 27:7-21, 27:7-21.1 (Supp. 1975).

[40] Mich. Stat. Ann. §§ 11.421-11.425 (1973).

[41] King Co., Wash., Ordin. No. 2231, §§ 2-7 (1975).

[42] Mich. Stat. Ann. §§ 11.425 (1973).

[43] Mich. Stat. Ann. § 11.422(3) (1973).

[44] Mich. Stat. Ann. § 13.700(10) (1973).

[45] *Id.*

[46] Mich. Stat. Ann. § 11.42 (1973).

[47] Mich. Const. art. VI, § 28; Mich. Stat. Ann. § 24.301 (1973).

[48] Mich. Stat. Ann. §§ 13.700(3)-13.700(15) (1973).

[49] N.J. Stat. Ann. § 27:7-21.1 (Supp. 1975).

[50] N.J. Stat. Ann. § 27:7-21 (Supp. 1975).

[51] N.D. Cent. Code § 49-02-02 (1960).

[52] N.D. Cent. Code § 28-32-05 (1974).

[53] N.D. Cent. Code § 49-11-07 (1960).

[54] Mass. Gen. Laws Ann. ch. 131, § 40 (1974).

[55] *Id*.

[56] Mass. Gen. Laws Ann. ch. 21, §§ 26-53 (1973), *as amended*, (Supp. 1974).

[57] W. Va. Code Ann. § 17-2A-8(23) (1974).

[58] W. Va. Code Ann. §§ 29A-5-1, 29A-5-4 (1971).

[59] Va. Code Ann. § 15.1-901 (1973).

[60] Va. Code Ann. § 15.1-905 (1973).

[61] Va. Code Ann. § 36-97 - 36-119 (1950).

[62] Antieau, §§ 6.02, 6.03 (1973).

[63] Va. Code Ann. § 15.1-510 (1973).

[64] Va. Code Ann. § 15.1-486 (1973).

[65] Antieau, § 5.08 (1973).

[66] Wis. Stat. Ann. §§ 31.01 - 31.19 (1973), *as amended*, (Supp. 1974).

[67] *Id*. at § 31.19.

[68] Wis. Stat. Ann. § 31.25 (1973).

[69] Wis. Stat. Ann. § 31.26 (1973).

[70] Wis. Stat. Ann. § 59.971 (Supp. 1974).

[71] Antieau, § 5.08.

[72] Antieau, § 5.03.

[73] Wis. Stat. Ann. § 59.99 (1957), *as amended*, (Supp. 1974).

[74] Antieau, §§ 6.02, 6.03.

[75] Wis. Stat. Ann. § 59.07 (1957), *as amended*, (Supp. 1974).

[76] King Co., Wash., Ordin. No. 1488, § 21, 16 (1973).

[77] King Co., Wash., Ordin. No. 1488, § 15 (1973).

[78] King Co., Wash., Ordin. No. 1488, § 19.20 (1973).

[79] King Co., Wash., Ordin. No. 1488, § 22 (1973).

[80] King Co., Wash., Ordin. No. 2231, § 2b (1975).

[81] Wash. Const. art. II, § 4.

[82] Antieau, § 5.08.

[83] Antieau, § 5.03.

[84] Antieau, §§ 6.02, 6.03.

[85] Hawaii Rev. Stat. § 264-6 to 264-12 (1968), _as amended_, (Supp. 1974).

[86] Ind. Ann. Stat. § 8-13-1-2 (1973).

[87] Ind. Ann. Stat. § 8-13-1-5 (1973).

[88] Ind. Ann. Stat. §§ 4-22-1-14, 4-22-1-18 (1974).

[89] Kan. Stat. Ann. §§ 68-401 to 68-433, 68-501 to 68-599 (1972), _as amended_, (Supp. 1974).

[90] _Id._ at 68-433.

[91] _Id._ at 68-502, 68-571.

[92] N.J. Stat. Ann. § 27:7-21 (Supp. 1975).

[93] N.J. Stat. Ann. § 40:180-1 (1967).

[94] N.J. Stat. Ann. §§ 52:14B-1 to 52:14B-18 (1970), _as amended_, (Supp. 1975).

[95] N.J. Stat. Ann. § 40:180-2 (1967).

[96] Antieau, § 5.08.

[97] N.J. Stat. Ann. §§ 40:67-1, 40-67-16.5 (1967).

[98] Antieau, §§ 6.50, 6.49.

[99] N.D. Cent. Code §§ 24-05-02 to 24-05-22 (1970), _as amended_, (Supp. 1973).

[100] N.D. Cent. Code §§ 24-05-20, 24-06-26.1 (1970).

[101] N.D. Cent. Code § 24-06-27, 24-06-29 (1970), _as amended_, (Supp. 1973).

[102] N.D. Cent. Code § 11-11-10 (1960).

[103] Antieau, § 2.08.

[104] W.Va. Code Ann. §§ 17-2A-8(1), 17-2A-8(2) (1974).

[105] W.Va. Code Ann. §§ 29A-5-1, 29A-5-4 (1971).

[106] Utah Stat. Ann. §§ 27-12-1 to 27-12-8, 27-12-104, 27-13-2 to 27-13-9 (1969), as amended, (Supp. 1973).

[107] Utah Stat. Ann. §§ 63-46-10, 63-46-9 (Supp. 1973).

[108] Va. Code Ann. §§ 15.1-854, 15.1-863 et seq. (1973).

[109] Va. Code Ann. §§ 15.1-863 (1973); §§ 36-97 to 36-119 (Supp. 1975).

[110] Wis. Stat. Ann. §§ 81.01, 83.01, 84.07 (1957), as amended, (Supp. 1974).

[111] Wis. Stat. Ann. § 84.01 (Supp. 1974).

[112] Wis. Const. art. 4, § 23; Wis. Stat. Ann. § 59-01 (Supp. 1974); Antieau, § 5.08.

[113] Antieau, § 5.03.

[114] Ind. Ann. Stat. § 18-5-10-1 et seq. (1974).

[115] Antieau, §§ 5.03, 5.08, 6.02, 6.03.

[116] Mich. Comp. Laws Ann. §§ 103.3 (1967).

[117] Mich. Comp. Laws Ann. §§ 89.1, 89.2 (1967).

[118] Antieau, § 5.03; Mich. Comp. Laws Ann. § 103.4 (1967).

[119] Antieau, § 5.08.

[120] Kan. Stat. Ann. § 14-1307 (1964).

[121] Kan. Const. art. XII, § 5; Antieau, § 5.03.

[122] Antieau, §§ 5.03, 5.08, 6.02, 6.03.

[123] W.Va. Code Ann. § 17-2A-4, 17-2A-8 (1974).

[124] Antieau, § 5.03; W.Va. Code Ann. § 17-4-31 (1974).

[125] W.Va. Code Ann. § 17-4-38 (1974).

[126] Va. Code Ann. § 33.1-12 (Supp. 1975).

[127] Va. Code Ann. § 56-369 (1974).

[128] Va. Code Ann. § 56-366.1 (1974).

[129] Va. Code Ann. § 56-462 (1974).

[130] Va. Code Ann. §§ 56-6, 56-449, 56-468 (1974).

[131] Va. Code Ann. § 9-6.14:1 to 9-6.14:19 (Supp. 1975).

[132] Minn. Stat. Ann. § 160.07 (Supp. 1974).

[133] City of Bellevue, Wash., Ordin. No. 1704, *as amended* by Ordin. Nos. 1765 and 1803 (1972), International Conference of Building Officials, Uniform Building Code (1973).

[134] Uniform Building Code at §§ 201, 202 (1973).

[135] Uniform Building Code at 102 (1973).

[136] Uniform Building Code at 304 (1973); Antieau, *Municipal* § 5.03 (1973).

[137] Uniform Building Code at § 202 (1973).

[138] Uniform Building Code § 301d (1973).

[139] Uniform Building Code at §§ 306, 301a (1973).

[140] Uniform Building Code at Parts III-XII (1973).

[141] *Id.*

[142] *Id.*

[143] *Id.* at § 205.

[144] *Id.*

[145] *Id.* at § 3.

[146] City of Bellevue, Wash., Ordin. No. 1803, § 1 (1972).

[147] City of Bellevue, Wash., Ordin. No. 1803, § 205 (1972).

[148] City of Bellevue, Wash., Ordin. No. 1803, § 206 (1972).

[149] City of Bellevue, Wash., Ordin. No. 1803, § 206 (1972).

[150] City of Bellevue, Wash., Ordin. No. 1803, § 2 (1972).

[151] *Id.*

[152] *Id.*

[153] King Co., Wash. Ordin. No. 2096 (1973).

[154] *Id.*

[155] *Id.*

[156] King Co., Wash., Ordin. No. 2096 (1973).

[157] *Id.* at § 206.

[158] King Co., Wash., Ordin. No. 2096, § 3 (1973).

[159] International Conference of Building Officials, Uniform Housing Code (1973) cited in King. Co., Wash., Ordin. No. 2096 (1973).

[160] *Id.* at § 201(a).

[161] *Id.* at §§ 303, 301, 1401(c)(3).

[162] *Id.* at § 103(a).

[163] *Id.* at §§ 103(b), 103(c).

[164] *Id.* at §§ 301, 204.

[165] *Id.* at §§ 1601-1611.

[166] *Id.* at § 1201.

[167] *Id.*

[168] Hawaii Stat. Ann. § 62-39 (1968).

[169] Hawaii Stat. Ann. § 62-51 (1968).

[170] Hawaii Stat. Ann. § 62-34 (1968).

[171] Id.

[172] Hawaii Stat. Ann. §§ 91-9, 91-14 (1968), *as amended*, (1975).

[173] Va. Code Ann. tit. 36, §§ 36-97 to 36-119, 36-98 (Supp. 1975).

[174] *Id.* at § 36-105 (1970), *as amended*, (1975).

[175] Id. at § 36-99.

[176] Id. at § 36-105.

[177] Va. Code Ann. Ann. § 36-124 (1970).

[178] Va. Code Ann. § 36-126 (Supp. 1975).

[179] Va. Code Ann. § 36-130 (Supp. 1975).

[180] Va. Code Ann. § 36-106 (Supp. 1970).

[181] Va. Code Ann. §§ 9-6.14:1 to 9-6.14:19, 9-6.14:12, 9-6.14:17 (1972), _as amended_, (Supp. 1975).

[182] Va. Code Ann. §§ 15.1-465 to 15.1-485, 15.1-499, 15.1-474 (1972), _as amended_, (Supp. 1975).

[183] _Id._ at §§ 15.1-474, 15.1-476.

[184] Va. Code Ann. §§ 15.1-905, 15.1-499, 15.1-901 (1973).

[185] _Id._ at § 15.1-901

[186] Antieau, § 5.03

[187] W.Va. Code Ann. § 8-12-13 (1969).

[188] W.Va. Code Ann. § 8-12-14 (1969).

[189] W.Va. Code Ann. § 8-11-1 (1969).

[190] W.Va. Code Ann. § 8-34-1 (1969).

[191] Antieau, §§ 3.05, 5.08

[192] Cal. Gov't. Code §§ 66411-66499.37 (Supp. 1974).

[193] N.D. Cent. Code tit. 58, §§ 58-03-11, 58-03-14; 58-03-11 (1972).

[194] N.D. Cent. Code Ann. Const. § 184, (1972).

[195] Mich. Comp. Laws Ann. § 67.22 (1970).

[196] Mich. Comp. Laws Ann. § 67.12 (1970).

[197] Mich. Comp. Laws Ann. § 67.23 (1970).

[198] Mass. Gen. Stat. Ann. ch. 81, § 21 (1968), _as amended_, (Supp. 1974).

[199] _Id._

[200] _Id._

[201] _Id._

[202] _Id._

[203] Mass. Gen. Laws Ann. ch. 81, § 13 (1968).

[204] Mass. Gen. Laws Ann. ch. 30A, §§ 10, 14 (1958), _as amended_, (Supp. 1974).

[205] Mass. Gen. Laws Ann. ch. 30A, § 10A (Supp. 1974).

[206] Mich. Comp. Laws Ann. § 472.19 (1970).

[207] Mich. Comp. Laws Ann. § 472.13 (1970).

[208] Antieau, *Municipal* § 5.03 (1973).

[209] Antieau, *Municipal* § 5.08 (1973).

[210] Kan. Stat. Ann. § 13-1904 (1964).

[211] Kan. Stat. Ann. § 13-1903 (1964).

[212] Kan. Stat. Ann. § 13-1904 (1964).

[213] Kan. Stat. Ann. § 13-1903 (1964).

[214] N.D. Cent. Code Ann. §§ 49-01-02, 49-11-04 to 49-11-06 (1960).

[215] *Id.* at § 49-11-04.

[216] *Id.* at § 49-02-02.

[217] N.D. Cent. Code Ann. §§ 49-11-15, 49-11-07 (1960).

[218] Mich. Comp. Laws Ann. §§ 281.131 - 281.135, § 281.131 (1970).

[219] *See* Statutes Controlling Water Pollution this chapter.

[220] Mich. Comp. Laws Ann. § 281.132b (1970).

[221] Mich. Comp. Laws Ann. § 281.132a (1970).

[222] Mich. Comp. Laws Ann. § 281.135 (1970).

[223] *Id.*

[224] Mich. Comp. Laws Ann. §§ 24-201-24.215; 24.271, 24.301 (1970).

[225] Wis. Stat. Ann. §§ 31.01-31.38; 31.02 (1973).

[226] *Id.* at §§ 31.20, 31.04, 31.02.

[227] *Id.* at § 31.19.

[228] *Id.* at § 31.25.

[229] *Id.* at § 31.06.

[230] King.Co., Wash., Ordin. No. 2231, § 3 (1975).

[231] See Statutes Controlling Water Pollution this chapter.

[232] King Co., Wash., Ordin. No. 2231 at §§ 3, 7 (1975).

[233] Va. Code Ann. §§ 62.1-116 to 62.1-127 (1973).

[234] *Id.* at 62.1-118, 62.1-119.

[235] *Id.* at § 62.1-122.

[236] Mich. Comp. Laws Ann. §§ 322.701 to 322.715; 322.712

[237] *Id.* at § 322.715.

[238] *Id.* at 322.709.

[239] *Id.* at 322.712.

[240] *Id.* at § 322.710.

[241] Va. Code Ann. §§ 5.1-56 to 5.1-58,(1972).

[242] *Id.* at § 5.1-58.

[243] *Id.*

[244] *Id.*

[245] Va. Code Ann. §§ 5.1-69, 5.1-59, 5.1-58, 5.1-60, 5.1-61 (1972).

[246] W.Va. Code Ann. §§ 17-2A-8, 17-2A-4, 17-3-1 to 17-3-10 (1974).

[247] See Statutes Controlling Water Pollution this chapter.

[248] W.Va. Code Ann. § 17-2A-8 (1974).

[249] N.J. Stat. Ann. § 40:55A-5 (1967).

[250] N.J. Stat. Ann. § 40:55A-5, 40:55A-11 (1967).

[251] N.J. Stat. Ann. § 40:55A-9, 40:55A-10 (1967).

[252] Antieau, §§ 6-17, 6.50.

[253] Mass. Gen. Laws Ann. ch. 131, §§ 40, 40A, 41, 42 (1974).

[254] See Statutes Controlling Water Pollution this chapter.

[255] Mass. Gen. Laws Ann. ch. 131, § 40 (1974).

[256] *Id.*

[257] *Id.*

[258] *Id.*

[259] Mass. Gen. Laws Ann. ch. 30A, §§ 10, 14 (Supp. 1974).

[260] King Co., Wash., Ordin. No. 1488, §§ 7, 6(2) (1973).

[261] King Co., Wash., Ordin. No. 1488, §§ 8, 9, 10 (1973).

[262] King Co., Wash., Ordin. No. 1488, § 22 (1973).

[263] King Co., Wash., Ordin. No. 1488, §§ 15, 16, 21 (1973).

[264] King Co., Wash., Ordin. No. 1488, § 20 (1973).

[265] King Co., Wash., Ordin. No. 1488, §§ 19, 20 (1973).

[266] Va. Code Ann. art. IX, § 2; §§ 12.1-2, 56-35 (1974), § 56-46.1 (1972), *as amended*, (Supp. 1975).

[267] *Id.* at 56-46.1 (1974), as amended, (Supp. 1975).

[268] *Id.*

[269] Va. Code Ann. § 12.1-38 (1974).

[270] Va. Code Ann. § 56-6 (1974).

[271] *Id.*

[272] Va. Code Ann. art. IX, § 4.

[273] Sands, § 65.03.

[274] Va. Code Ann. §§ 56-462, 56-468 (1974).

[275] Va. Code Ann. § 56-449 (1974).

[276] Va. Code Ann. § 56-366.1 (1974).

[277] Va. Code Ann. § 56-366.2

[278] VA. Code Ann. §§ 56-366.1, 56-366.2 (1974).

[279] *Id.*

[280] Va. Code Ann. § 46.1-180.3 (1974).

[281] *Id.*

[282] *Id.*

[283] Antieau, § 5.03.

[284] Antieau, § 5.08

MINING

Mining is an activity essential to the maintenance of the economic health of the United States and the continued industrial development of the world. Although the land area presently affected by mining activities represents less than one percent of the land area of the United States and by the year 2000 (even accepting the most optimistic estimates of Project Independence), that area will increase to only three percent, the effects of mining upon water quality and quantity are spread over large areas.

Any modification or disturbance of the earth's crust will in some way affect the environmental systems associated with the geologic substrate of that crust. The extent of such effects depends upon the nature and extent of the disturbance, the means by which the earth's crust is disturbed and the nature of the materials released and translocated as a result of the disturbance. In the case of mining for economic minerals, the purpose of disturbing the earth's crust is to extract quantities of economic minerals and the choice of technique or method is largely made on economic considerations alone.

Perhaps the most serious contaminant responsible for water pollution from mining activities is the acidic mixture of sulfuric acid with iron and other metallic salts which results from the oxidation in air of pyritic materials in the presence of water. Acid mine drainage can arise from both underground and surface mining activities.

SURFACE MINING

According to EPA studies, surface mining in ground water recharge areas should be avoided, and where unavoidable, special water handling measures should be established as part of the mining plan.

Any process leading to issuance of permits for mining operations should require mine operators to report local soil and slope stability characteristics, since some soils are highly erodable and require rigorous erosion control measures if water quality is to be maintained and some geologic formations weather rapidly upon exposure to air and water. The weathered formations become unstable and subject to sliding and flowing, which, in addition to contaminating local surface waters also represents a safety hazard. The permitting process should also require mine operators to adequately describe regional physiography since certain terrain may require special mining techniques such as the modified block-out, parallel fill, and/or slope reduction in order to prevent massive landslides of spoil material. Over-burden segregation and handling should be planned for prior to initiation of any surface mining activity, and in the case of existing surface mining operations, further activities should be delayed pending approval of over-burden segregation and handling procedures. In some areas, surface mining takes place over existing operating or abandoned underground mines, and any permitting process should include a requirement for reporting the past mining and drilling history of the area so that underground mines and underground mine-water pools can be identified. When surface mining activities break through into underground mines, large quantities of contaminated but impounded water can be released. The introduction of air into the underground mine can also accelerate the chemical reactions that eventually result in acid mine drainage, particularly in eastern coal mining regions.

Local environmental conditions are extremely important in surface mine reclamation. It is difficult to revegetate surface mined lands in arid, semi-arid, alpine and tundra areas. Any area that is not revegetated immediately after mining is subject to the ravages of wind and water, and erosion resulting from mining operations can contaminate regional hydrologic systems for many years after mining activities have been abandoned.

In choosing plant species for revegetation, careful consideration must be given to the plants' adaptability to local environmental conditions.

While many modern surface mining techniques do not necessarily provide for complete reclamation, they do represent some means for controlling the release of contaminants from surface mining operations. A number of techniques are available to surface mine operators, and while all the techniques cannot be applied at any individual mine site, careful choice of mining procedures can minimize the contamination from any particular mine reclamation or mining operation.

It is a well known geologic fact that the contaminants which represent potential sources of water pollution are not evenly distributed throughout mineral seams, a phenomenon particularly evident in the case of coal. Of the many coal seams occurring in a given area, relatively few account for almost all the water pollution. Lateral variability occurs often in coal seams, and a particular coal seam may be acid in one area and alkaline in another. Water quality studies and core boring samples in polluted watersheds often indicate that contamination is not evenly distributed but is concentrated in local areas. A small portion of a watershed may be responsible for the majority of the water pollution. In certain areas, particularly in the eastern portion of the United States, extensive water quality sampling can determine these "hot" areas in mineral seams, and once these areas of high pollution potential are located and mapped, stringent water pollution control measures can be applied in those particular areas, reducing the overall cost of water pollution control throughout the entire region.

Much of the water pollution expected from future mining operations can be avoided by strictly regulating or, where necessary, prohibiting mining in areas of high pollution potential, but an essential first step is establishing a water quality sampling program on an areawide or regional scale to identify and map areas of high pollution potential. Such mapping should eventually include data on mineral seams, and mine operators should be compelled to provide maps for each individual mineral seam they seek to exploit.

Sedimentation, an environmental process defined as the erosion, transportation, and deposition of material by water and wind, is greatly accelerated by mining activities. Physical disturbance exposes soil and rock to erosive forces and increases erodability of the parent material. In mining areas, moving water is responsible for most of the erosion, although wind may be a significant transport mechanism for eroded material, particularly in arid or semiarid regions, carrying fine grained materials over wide areas. Inevitably, however, the material scattered by the wind will enter the network of surface water flow during periods of surface runoff.

The need for erosion control has been apparent for thousands of years, and the durability of many classical civilizations can be attributed to their success in protecting their limited supply of prime agricultural land from erosion. Extensive research by the United States Departments of Agriculture and Interior during this century has significantly advanced the science of erosion control.

Many of the erosion control procedures developed for urban and highway construction are applicable to mining operations, although erosion and sediment control techniques sometimes conflict with mine water chemical pollution controls and may require tradeoffs. Erosion control calls for a decrease of runoff water velocities, which can increase infiltration and chemical contamination. If the underlying material contains water leachable contaminants which can contribute significantly to pollution, infiltration should be discouraged. Mine-water chemical pollution control, on the other hand, generally calls for rapid surface water runoff to reduce infiltration. Where chemical contamination of surface and ground waters can occur, some balance must be maintained between sediment control and control of chemical contamination.

The basic methods of erosion control involve:

° isolation of erodable material from moving water by diversionary channelization and covering procedures;

° reduction of the velocity of water flowing over erodable material by slope control, revegetation and construction of impediments to flow (mulches, scarification, dikes, contour plowing, and dumped rock); and

° decreasing the erodability of the material by compaction and chemical stabilizers, burial of erosion prone materials, and revegetation.

Where erosion prevention methods are not as effective as may be desired, suspended material can be removed from the transport media, water, by construction of collection and conveyance systems leading to impoundments. Detaining water for a sufficient time under quiescent conditions will cause suspended material to settle out. The most efficient erosion control systems for active surface mines often combine settling ponds with such preventive measures as diversion and revegetation.

The choice of erosion and sediment control techniques should be made during mine planning and must consider local conditions including erodability of disturbed material, topography, rainfall, relationship of surface flow channels, the drainage area tributary to the mine site, mine site hydraulics and the settling characteristics of the transported material, although local physiographic, weather, and soil conditions result in variations in the level of control possible.

STRIP AND SURFACE MINING

State statutes regulating the establishment, operation, and abandonment of strip and surface mines generally include some provisions for protection of soil and water resources.

Operating standards may be imposed, plans required, and inspections authorized. Operation and reclamation plans can become important means of water pollution control.

Permits to conduct surface or strip mining are required in ten[1] of the twenty-two states surveyed by the EPA. Seven states[2] require operators to obtain permits for surface mining, while only five states[3] require strip mining permits. As conditions precedent to granting permits, many states require payment of administrative fees, maps of the area, plans of operation, and proof of ownership or right to mine. All of the states searched during this study require the filing and approval of a comprehensive reclamation plan as a condition precedent to obtaining a surface mining permit. All states searched during this study, except Indiana, require a reclamation plan for strip mining permits. Although Missouri[4] and Indiana[5] require reclamation, they do not condition approval of the permit application on approval of a comprehensive reclamation plan. To insure compliance with the reclamation plan or requirement, all the states searched also require applicants to post performance bonds which may be released if reclamation operations are satisfactorily completed. The bonds are subject to forfeit if operations are unacceptable. In each of the searched states, a designated State agency is authorized to reclaim the land if the operator fails to do so and may look to the bond for reimbursement.

In all the states studied administrative agencies have been designated to administer and enforce surface and/or strip mining laws. In each state, the regulatory agency is given the authority to promulgate rules and regulations and to carry out such inspections and investigations as may be necessary in the performance of its duties.

The West Virginia Surface Mining and Reclamation chapter[6] authorizes the Division of Reclamation of the Department of Natural Resources to administer state laws relating to surface mining. A Reclamation Commission was created and may issue rules, regulations and orders, make investigations and inspections and conduct hearings. Permits are required in West Virginia not only to engage in surface mining but also to prospect for coal. The Director of the Division is to consider and pass on all permit applications and reclamation plans. If surface mining cannot be carried out in such a manner as to prevent lakes or streams from being contaminated by sedimentation, landslides, or acid water drainage, the Director may prohibit the mining operation. The Director is also required to disapprove plans for operations within one hundred feet of public streams or lakes.

Virginia regulates the surface mining of coal. As in West Virginia, responsibility for regulation is divided between various state agencies. The Board of Conservation and Economic Development may promulgate rules and regulations and issue orders dealing with surface mining of coal,[7] while the Department of Conservation and Economic Development is responsible for administration and enforcement of the chapter.[8] Applications for prospecting and for surface mining permits are approved or disapproved by the Director of the Department of Conservation and Economic Development. Applications for surface mining permits must include specifications for mining operations, drainage and reclamation plans and proposed control techniques. A separate section of the State Code regulates certain other types of mining having an effect on the land surface.[9] The Department considers applications for mining permits, and no permit may be granted unless an acceptable plan of operation and reclamation is also submitted.[10] The Director of the Department is empowered to issue rules, regulations and orders, and to carry out inspections.

A related Virginia strip mine statute regulating "orphaned lands,"[11] authorizes the Director of the Department of Conservation and Economic Development to enter into agreements with owners or lessees of land disturbed by coal strip mining whereby they agree to allow the Division of Mined Land Reclamation to reclaim the land, in a manner prescribed by the Director.[12] Federal funds may be utilized in carrying out the purposes of this chapter. This statute, unlike the others discussed, is not a licensing statute and does not regulate mining activities; it merely gives the Department authority to reclaim lands which would not otherwise be reclaimed.

The other Virginia statute,[13] regulating certain types of mining other than coal mining, requires the submission of a plan of operation which must include proposed reclamation measures. Grading of loose soil and debris, revegetation, and debris removal are among the required reclamation measures. A bond of $200 to $1000 per acre must be posted to insure compliance.[14]

The Montana Board of Land Commissioners and the Department of State Lands share responsibility for regulation of surface and strip mining operations. The Reclamation of Mining Lands chapter of the Code[15] authorizes the Board to deny surface mining permits to operators who submit unsatisfactory reclamation plans or, more specifically, whose plans conflict with water and air quality standards. This chapter deals only with surface mining of ore, rock or a substance other than oil, gas, bentonite, clay, coal, sand, gravel, phosphate rock or uranium. The usefulness, productivity, and scenic value of Montana's lands and surface waters are to be considered by the Board in deciding on applications for permits, and the chapter authorizes the Board to issue rules, regulations and orders, hold hearings, and hire staff to act as supervisors. Montana,[16] like West Virginia and Virginia, requires separate prospecting permits for surface mine exploration work.

The Montana Strip Mining and Reclamation Act[17] also authorizes the Board to issue rules, regulations and orders pertaining to strip mining of coal or uranium. Under this Act, the Department of State Lands decides on all permit applications, including the plans of operation and reclamation required to be submitted with the application. Investigations and inspections are conducted by the Department. If a plan fails to include efforts to eliminate hazards of soil erosion, landslides and water pollution, it may be rejected by the Department.[18] A site permit is required to prospect land not covered by the strip mine permit.

The Montana Strip Mine Siting Act[19] extends the permit requirement to all new strip mines. An application for a permit must include a reclamation plan, as in the other Montana acts. In passing on the application, the Department of State Lands is to consider the environment and depletion of natural resources. Under this Act, the Department given the rule making power, may issue orders, and conduct investigations and inspections.

The Idaho Surface Mining Act[20] requires that the State Board of Land Commissioners consider and rule on all permit applications and reclamation plans. Control of erosion is to be a major factor in the acceptability of reclamation plans, rules and regulations.

In North Dakota, the Public Service Commission administers programs for the reclamation of strip-mined lands. Reclamation plans must accompany applications for permits to surface mine.[21] The Commission may adopt administrative rules and regulations, conduct hearings, and carry out inspections and investigations. Reforestation, revegetation and the enhancement of water resources are the goals of reclamation in North Dakota.[22] A reclamation plan is prerequisite to licensure and must include steps to minimize runoff and pollution from construction debris.[23] Certain areas of the state are designated as not reclaimable and, therefore, surface mining in these areas is prohibited.[24]

In Kansas, permits to surface mine are obtained from the Mined-Land Conservation and Reclamation Board, part of the Corporation Commission. The Mined-Land Conservation and Reclamation Act[25] authorizes the Board to promulgate rules and regulations, issue orders, and conduct investigations and inspections.

The Corporation Commissioner hires the personnel necessary to carry out the purpose of the act. Applications for permits must be accompanied by a reclamation plan which includes provisions for grading, prevention of undesirable seepage and revegetation.

Indiana requires permits for surface mining and strip mining. Surface mining is regulated under the Strip Mining Reclamation chapter of the Code,[26] and the Natural Resources Commission has the power to approve applications for permits and to promulgate rules and regulations. The Department of Natural Resources supervises the administration of the act, conducts any necessary investigations or inspections and issues enforcement orders. Applications for permits must be accompanied by plans for operation, grading, and reclamation, all of which must be approved by the Commission.[27] Strip Mining permits, on the other hand, are approved and issued by the Department of Natural Resources (formerly the Department of Conservation),[28] which may issue rules and regulations to enforce the provisions requiring land reclamation, grading, damming, and revegetation. However, a reclamation plan need not be filed with the application for a permit.

In Indiana, a reclamation plan is a prerequisite to obtaining a surface mining permit but not a strip mining permit,[29] while in Missouri, the reverse is true. Under the provisions of the Missouri Land Reclamation Act,[30] surface mining of clay, limestone, sand and gravel requires a permit, but a reclamation plan need not be included in the permit application. Rather, by rule and regulation the Land Reclamation Commission requires that reclamation be undertaken.[31] The Commission may promulgate rules and regulations, issue orders, conduct hearings, hire employees and carry out investigations and inspections in enforcing the Act.

Reclamation plans are a prerequisite to obtaining a strip mining permit in Missouri.[32] The plans should be formulated to prevent water and mine pollution and to promote soil and water conservation. As in the previous provisions, the Land Reclamation Commission may adopt and promulgate rules and regulations, issue orders, conduct hearings, and hire employees to conduct inspections and investigations. Plans and applications must be approved by the Commission before a permit will be issued.

A Board of Land and Natural Resources was established in Hawaii and empowered to issue or deny permits for strip mining.[33] Issuance of a permit is conditioned on the submission and approval of reclamation plans. The Board is given "full power and authority to carry out and administer the chapter," and although the power to issue rules and regulations is not specifically mentioned, the Board may hold hearings, issue orders and conduct investigations.

In a separate chapter of the Hawaii Code, this power to issue strip mining permits is limited somewhat, since no permit or license may be issued for strip mining on land within state forest reserve boundaries without the prior approval of the Department of Land and Natural Resources.[34] In determining whether to grant or withhold approval, the Department is to consider the effects of the proposal on forest growth, and the conservation and development of water resources.

The final state surveyed which regulates surface or strip mining is Colorado. The Colorado Open Mining Land Reclamation Act of 1973[35] requires that operators obtain permits to engage in open mining, which includes mining of limestone for construction purposes, coal, sand, gravel and quarry aggregate by open cut mining, strip mining, open pit mining, quarrying and dredging. Reclamation plans containing provisions protecting water supplies from acid and refuse pollution and siltation and protecting soil from water erosion must be approved by the Land Reclamation Board, which is authorized to set standards for reclamation plans, promulgate rules and regulations and make reasonable inspections.

Performance bonds provide an efficient means of insuring reclamation of disturbed lands in that they encourage the operator to perform reclamation in the first instance and provide the state with the funds to reclaim the land if the operator does not. The reclamation plans required to be filed under most statutes also provide a significant control of activities which may lead to water pollution. Reclamation of water, often as critical as reclamation of the land, must also be considered; where ignored, some states will not issue a permit, while other states[36] impose penalties such as permit or bond revocation, fines or criminal liability.[37]

The reclamation plan required to be filed under the West Virginia Surface Mining and Reclamation Chapter[38] must contain provisions for the protection of the public, their property, and soil and water resources. Prior to commencement of mining operations an operator must complete and maintain a drainage system. Other reclamation efforts may be undertaken at scheduled intervals. Several reclamation procedures are required to be made contemporaneously with mining operations.[39] Water protection measures such as runoff testing and treatment, revegetation, and seepage and soil erosion prevention are to be a part of reclamation efforts. A bond equal to the greater of $600 to $1000 per acre or $10,000 per operation is to be posted with the application and may be forfeited if reclamation efforts are unacceptable or if the operator refuses to obey an order of the Director.[40] In West Virginia, as in several other states,[41] the agency, in this case the Division of Reclamation of the Department of Natural Resources, has no authority to bring forfeiture proceedings, but must request the Attorney General or a county attorney to institute the action. In addition to the performance bond, a special reclamation tax of $60 per acre of land disturbed is assessed. The proceeds from this tax are to be applied to the reclamation bond was ever posted.[42]

Virginia's Coal Surface Mining chapter[43] also requires that reclamation plans include a description of control techniques and a drainage plan. A bond of $300 per acre is required for a prospecting permit, while the bond for a surface mining permit to mine five acres or more is the greater of $200 to $1000 per acre or $2500. Both bonds are significantly lower than those required by West Virginia. Following service of notice of non-compliance with the plan of operation or reclamation or with agency rules and regulations, the Director may declare the bond to be forfeited.[44]

Reclamation efforts in Montana are to be conducted as rapidly and as completely as possible according to the chapter on Reclamation of Mining Land and the Montana Strip Mining and Reclamation Act.[45] The reclamation chapter requires reclamation simultaneously with mining efforts or at least promptly after completion. In either case, reclamation is to be completed within two years.[46] The Strip Mining and Reclamation Act calls for reclamation "as rapidly, completely, and effectively as the most modern technology will allow."[47] Both measures seek to control soil erosion, runoff and water pollution and the bond requirements are similar in both measures.[48] The third Montana measure, the Strip Mine Siting Act,[49] patterns its bond requirement after the Strip Mining and Reclamation Act but raises the minimum involved. For new strip mine sites, a performance bond of between $200 to $10,000 per acre or $5000 must be posted, but in no instance may the bond required be less than the estimated cost of reclamation.[50] The Reclamation of Mining Lards chapter is the only one of the three statutes which details the procedure for bond forfeiture. Under the provisions of that chapter, the Board of Land Commissioners, after notifying the permittee of noncompliance and allowing a reasonable time for compliance, is to request the Attorney General to bring bond forfeiture proceedings and, if necessary, to sue for deficiencies.

To comply with the Idaho Surface Mining Act,[51] reclamation plans must contain provisions for the restructuring and revegetation of the overburden so as to prevent and control erosion. Reclamation efforts must commence within one year after mining operations are terminated. The bond in Idaho is relatively low, a maximum of $500 per acre. If an operator fails to reclaim, the Board of Land Commissioners may reclaim and sue for costs, or sue for forfeiture of the bond.[52] Once again, forfeiture proceedings must be brought by the Attorney General at the Board's request.

The North Dakota Reclamation of Strip Mined Lands chapter allows the Public Service Commission to institute its own bond forfeiture proceedings if an operator fails to comply with the rules of the Commission. A reclamation plan, to obtain approval of the Commission, must include steps to minimize water pollution from runoff and construction debris and efforts to reforest and revegetate. A bond of up to $500 per acre may be required to insure compliance with the plan.[53] The chapter requires that reclamation be completed within three years of the termination of mining operations.

Grading, draining and revegetation efforts are to be included in reclamation plans in Kansas and are to be required by the Department of Natural Resources in Indiana to prevent soil erosion and the resulting pollution of waters.[54] The Kansas Mined-Land Conservation and Reclamation Act[55] sets the performance bond for surface mining operations at $300 to $1000 per acre, while the Indiana Strip Mining Reclamation chapter requires a $300 to $2000 per acre bond for surface mining.[56] The Indiana statute provides for retention of the bond by the Department of Natural Resources upon failure of the operator to satisfactorily complete reclamation,[57] but the Kansas Mined-Land Conservation and Reclamation Board has no such authority. The Kansas Board must petition the Attorney General to institute bond forfeiture proceedings if an operator fails to comply with the Board's rules and regulations.[58] Kansas, like Montana, provides a timetable to which reclamation efforts must adhere. Reclamation is to commence as soon as possible; grading is to be kept current with mining operations; and all reclamation is to be completed within twelve months after the permit expires.

The bond requirements for strip mining in Missouri vary according to the mineral being mined.[59] The Attorney General represents the Land Reclamation Commission in bond forfeiture proceedings, which proceedings may be instituted, after notice and opportunity for a hearing, for non-compliance with any of the Commission's rules and regulations. The chapter regulating strip mining of coal and barite, the Reclamation of Mining Land Chapter,[60] requires that a reclamation plan be submitted as prerequisite to obtaining a permit. A strict timetable is included indicating within how many days after completion of the mining operations each phase of reclamation must be commenced and completed. Reports must be filed detailing reclamation progress, and the Commission may inspect for compliance.

Hawaii's Strip Mining chapter[61] requires that strip mine reclamation plans be accompanied by a performance bond of up to $300 per acre, and the Board of Land and Natural Resources is empowered to bring forfeiture proceedings. The Colorado Land Reclamation Board has no such authority under the Open Mining Land Reclamation Act.[62] The performance bond, in an amount to be determined by the Board, may be forfeited for failure to reclaim only at a forfeiture proceeding instituted by the Attorney General.[63] the bond will be declared forfeited only after written notice and an opportunity for a hearing prior to the Board's requesting forfeiture proceedings.

Reclamation of land is prescribed in several other miscellaneous statutes not dealing with strip mining or surface mining. The Idaho Dredge Mining and Placer Mining Protection Act[64] conditions retention of the required permit and return of the performance bond upon restoration by the operator of the topsoil and vegetation in the disturbed area. Before water used in mining operations is discharged into any stream, it must meet state water quality standards.[65] Failure to comply with these or other provisions of the act or with rules and regulations or conditions set by the Board of Land Commissioners will result in disciplinary action. A bond of $1000 per acre with a $10,000 minimum may be forfeited to the state after notice and an opportunity for a hearing.

Provisions in the Mineral Land section of the Minnesota Code[66] calls for the filing and approval of a reclamation plan before a permit may be issued to mine copper or nickel. The Commissioner of Natural Resources may adopt these rules and regulations to prevent water pollution and regulate mine waste disposal. A bond to insure compliance with the plan may be required by the Board if an operator has failed to reclaim in the past or if the Board has reason to doubt that the operator will reclaim.[67] This type of bond requirement seems to offer the state far less protection than the mandatory performance bonds required in the other statutes discussed. Minnesota is not the only state with such a provision. A Michigan law[68] regulating Metallic Mineral Mining Operations authorizes the Chief of the Geological Survey to determine whether an operator is a bad risk and whether such operator should be required to post a performance bond. Minnesota does, however, require each operator to obtain liability insurance to cover personal injuries or property damage, while the Michigan law does not. As a result, there is no requirement in the Michigan law that operators file reclamation plans. On the other hand, both laws authorize the administrative agencies involved to conduct studies or surveys on the effects of mining on soil erosion and water quality, and to promulgate rules and regulations regarding reclamation or restoration based on these studies.[69] Failure to reclaim in either state may result in bond forfeiture although neither state details the procedures for recovery upon the bond.

Montana's Open Cut Mining Act[70] regulates the open cut mining of bentonite, clay, scoria, phosphate rocks, sand and gravel. Like the Montana statutes regulating strip and surface mining, this Act requires the approval of a reclamation plan before operations may begin. The Act does not require a permit to mine but rather a contract with the Board of Land Commissioners by which the operator agrees to reclaim and revegetate the disturbed land and protect water and other resources.[71] A bond commensurate with the costs of reclamation but amounting to at least $200 and no more than $1000 per acre is to be posted before the contract may be accepted. The Board is authorized to bring suit for bond forfeiture and/or breach of contract if the operator fails to reclaim.

The Montana Landowner Notification Act[72] makes it a misdemeanor for prospectors or miners to fail to notify the landowner of the intent to disturb the land and to disclose contemplated protection and restoration measures. The landowner's approval of these measures must be obtained in advance. The final reclamation statute is a recent amendment to the Indiana Reclamation of Lands chapter.[73] The statute authorizes the Department of Natural Resources to purchase land to reclaim, if the owner fails to do so, but the provision applies only to land disturbed by strip or shaft mining. The Director of the Department may grade, plant and perform other acts of restoration on the land purchased and may then turn them over to a state agency for sale to the public.

Penalties

Although performance bonds are an effective means of insuring that damage to the environment is corrected to the extent possible, they do nothing to prevent that damage from occurring in the first place.

The extent of environmental damage caused by mining, including water pollution, may be limited at several stages. The first is the permit stage. If unacceptable damage to the environment can be expected to result or if the reclamation plans are insufficient, a mining permit may be denied. Each of the statutes discussed in this section which authorizes an agency to grant permits also authorizes refusal to grant permits; however, once a permit has been granted an economic interest has been created which cannot be limited without due process of law. When violations of the laws or regulations occur, injunctive relief may provide the most immediate and the most effective remedy. The usual procedure is for the administrative agency to first order compliance and then to proceed to exhaust administrative remedies. Fourteen of the statutes[74] discussed in this section authorize some form of injunctive relief. Seven of the statutes allow the agency administering the act to institute injunction proceedings, while four others require that the Attorney General represent the state in these suits.

The West Virginia, Virginia and North Dakota provisions regulating surface mining, the Virginia statute regulating other types of mines, the Missouri coal and barite strip mining statute, the Hawaii strip mining statute, the Kansas Mined-Land Conservation and Reclamation Act, and the Idaho Dredge Mining and Placer Mining Protection Act all permit the authority charged with administering the statute to institute proceedings to enjoin violations of their provisions or orders issued under them. However, the Idaho Surface Mining Act[75] restricts the use of injunctions, authorizing the Board of Land Commissioners to seek injunctive relief only if no performance bond or an insufficient performance bond was filed. If a bond has been filed, forfeiture of the bond is the remedy provided for failure to reclaim, and continued mining operations may not be enjoined. On the other hand, the Idaho Dredge Mining Act allows not only the Board to enjoin wrongful mining operations but also citizens.[76] This is the only state mining legislation authorizing citizen suits for injunctive relief.

The West Virginia Surface Mining and Reclamation provision[77] permits injunctive proceedings to be brought by certain persons other than the administrative agency (Director of the Department of Natural Resources); the Attorney General and the county prosecuting attorney each have authority under the act to compel compliance with or enjoin violations of the article. The Kansas Mined-Land Act[78] contains a provision which the other acts do not. It authorizes actions for specific performance of reclamation plans in addition to other equitable relief.

All three Montana strip or surface mine statutes require that suits to enjoin violations or threatened violations of orders adopted under their provisions be brought by the Attorney General on behalf of the state.[79] The same is true in Minnesota, where under the Mineral Lands chapter,[80] it is the Attorney General who must institute proceedings against violators of the article. The Metallic Mineral Mining Operations sections of the Michigan Code[81] authorize the Chief of the Geological Survey Division to promulgate rules and regulations relating to mining operations. Violations of these rules and regulations may be enjoined in proceedings brought by the Attorney General.

A preliminary step must be taken prior to seeking either injunctive relief or bond forfeiture. The agency must order compliance or order actions to cease. If such an order is issued and obeyed, no further action needs to be taken; however, in most cases, the operator may request a hearing to appeal the order. Unless the hearing officer or the statute provide otherwise, the order must usually be complied with until a final decision is made. Therefore, like a temporary restraining order, an agency order even when objected to has certain advantages. Of course, the order may be disobeyed, in which case enforcement proceedings, perhaps injunctive relief, will be necessary. Noncompliance with an order may result in criminal or civil penalties.

The Kansas Mined-Land Conservation and Reclamation Act[82] authorizes the Board to issue cease and desist orders, permit suspension orders, and orders requiring operators to adopt remedial measures. Persons disobeying such orders are subject to a fine of up to $250 per day. The Missouri Reclamation of Mining Lands[83] statute allows the Land Reclamation Commission to issue cease and desist orders and assess civil penalties of up to $1000 per day for their violation.

A division of authority with regard to orders exists under the Montana Strip Mining and Reclamation Act. The Board of Land Commissioners may issue orders requiring remedial measures or revoking permits,[84] while the Department of Conservation and Economic Development actually revokes the permit and also has authority to order the halting of operations.[85]

Revocation of permits is another enforcement measure provided for in a number of statutes. Of the statutes which authorize agencies to grant and deny permits, only three, the Virginia chapter on Permits for Certain Mining Operations, the Idaho Surface Mining Act and the Colorado Open Mining Land Reclamation Act of 1973, fail to expressly authorize the revocation of those permits. The Virginia statute does, however, mention permits which have been revoked in one of its provisions.[86] All of the other licensing statutes allow the administering agency or agencies to revoke and/or suspend permits for violations of statute provisions or permit terms.

West Virginia is among the states which authorize suspension or revocation of surface mining permits,[87] but this is not the only action open to the responsible agency in that state. The Surface Mining and Reclamation article[88] gives the Director of the Department of Natural Resources the power to take any legal action necessary to enforce its regulations.

Citizen action is another way to prevent violations from occurring or to collect damages for past violations. Two states have statutes authorizing citizens to file writs of mandamus seeking to force government officials to enforce the mining laws. The West Virginia Surface Mining and Reclamation chapter[89] has such a provision, as do the Montana Strip Mining and Reclamation Act[90] and the Montana Strip Mine Siting Act.[91] The first two statutes also authorize citizen suits for damage to property caused by mining operations. The West Virginia chapter provides for treble damages.[92] Damage suits may also be brought in Idaho under the Dredge Mining and Placer Mining Protection Act,[93] and in Minnesota under the Mineral Lands chapter.[94] The Idaho Act also allows citizens to seek injunctive relief to prevent wrongful mining, and in addition, it contains a provision authorizing private citizens to apply to the Board of Land Commissioners seeking administrative remedies in addition to remedies at law and equity.

Seven statutes[95] provide civil penalties for violations of statute provisions, orders, rules or regulations. The Minnesota Mineral Lands chapter provides civil penalties of $1000 per day for failure to comply.[96] The Idaho Surface Mining Act,[97] the Montana Strip Mining and Reclamation Act,[98] the Montana Strip Mine Siting Act,[99] and the Montana Reclamation of Mining Lands chapter[100] all punish violations by civil penalties of between $100 to $1000 per day. Of these five acts, only Montana's Reclamation chapter fails to provide an additional criminal punishment for willful violations. Willful violations in the other four measures are misdemeanors.[101]

The Kansas Mined-Land Conservation and Reclamation Act[102] subjects violators of rules, regulations or orders of the Board to fines of up to $250 per day. Hawaii punishes violations of the Strip Mining chapter by forfeitures of $5000 recoverable in an action brought by the Board of Land and Natural Resources.[103] Indiana's chapters[104] licensing strip mining and surface mining both provide fines of $1000 to $5000 upon conviction of violating the provisions of the acts, and such violations are misdemeanors under both chapters. The Idaho Dredge Mining Act[105] also punishes violations of the act, rules or regulations as misdemeanors, with each day of violation constituting a separate offense, but no specific form of punishment is set forth in the act.

The Montana Open Cut Mining Act,[106] the Missouri Land Reclamation Act,[107] the Colorado Open Mining Land Reclamation Act of 1973,[108] and the North Dakota Reclamation of Strip-Mined Lands[109] chapter all punish failure to secure a permit (or contract) as misdemeanors, and in each case a fine is provided for upon conviction.

Fines and/or imprisonment are also provided for under two Virginia statutes. The chapter regulating the surface mining of coal[110] declares that mining without a permit, obtaining a permit through false information, willfully failing to follow control techniques and willfully disobeying regulations or orders misdemeanors, are punishable by fines of up to $1000 per day and/or up to one year imprisonment. The Virginia chapter governing certain other mining operations[111] declares that violation of any section of the statute or order of the Director is a misdemeanor punishable by a fine of up to $1000 and/or up to one year in prison. West Virginia also punishes willful violation of the Surface Mining and Reclamation statute, or operating without a permit, or obtaining a permit by making a false statement as misdemeanors.[112]

COAL MINING

Strip mining and reclamation laws are the primary tools used by the states studied to regulate coal mining. In a number of states, separate legislation controls waste of coal, refuse disposal and various mine safety measures.

Montana enacted the Strip Mined Coal Conservation Act[113] to prevent waste of coal. The act requires the submission and approval of a comprehensive strip mine plan to the Department of State Lands in order to achieve this end. Although control of water pollution was not the avowed purpose of the act, it could be a significant result of waste prevention activities.

Coal refuse and coal dust control are the subject of a number of statutes.[114] The protection of human life is usually the primary purpose of this legislation. Nevertheless, as in waste prevention statutes, the remedial measures taken for other purposes may also reduce water pollution.

West Virginia has a Coal Refuse Disposal Control Act[115] which enables the Director of the Department of Natural Resources to order an operator of a coal refuse pile which is in a dangerous condition to take remedial action at his own expense. If the refuse pile constitutes and immediate danger to human life, the director may enter the land and take whatever remedial measures are necessary. This particular statute contains several provisions directly aimed at the abatement of water pollution. The director is authorized to reclaim abandoned coal refuse piles and, as part of reclamation efforts, abate water pollution.[116] To enforce this act, the Department is authorized to adopt rules and regulations, issue orders, hold hearings, make inspections, and take any remedial action necessary.

West Virginia,[117] Indiana[118] and Kansas[119] have all enacted legislation controlling coal dust by requiring sprinkling with a wetting agent or specifying means of removal from the mines that would minimize the risk that dust would escape. Since failure to properly wet the dust can result in its escape and eventual transport to nearby surface waters, and since improper wetting procedures could cause runoff and result in water pollution, adequate inspection and enforcement of these provisions may aid in pollution abatement. The Department of Mines is charged with enforcement in West Virginia; the Director of the Department may make inspections, issue orders, rules and regulations, and hold hearings. In Indiana, the Bureau of Mines, a division of the Department of Mines, is responsible for the execution and administration of this act, and the Director of the Bureau has the powers of a police officer to arrest and detain. In addition, he may make inspections, issue orders and hire necessary assistants. Since these laws are primarily to protect miners, Kansas has given the Labor Commissioner power to enforce its coal dust provisions, and the Commissioner has the authority to make inspections, take preventive measures, and order removal of safety hazards.

Old, unused or abandoned mines present a number of safety hazards, and are the subject of legislation in Indiana and West Virginia. The Indiana Mining Act of 1955[120] contains a provision requiring that abandoned mines or parts of mines be filled and sealed by the last operator. Such a seal might prevent escape of contaminants to surface waters and ground water. As in the coal dust provisions of the act, the Bureau of Mines is charged with enforcement.

West Virginia[121] requires that all unused coal mines be plugged with fireproof material in such a manner as to allow periodic checks for gas. Any person desiring to reopen an abandoned coal mine must give the Director of the Department of Mines ten days written notice if water or mine seepage has collected or if the opening of the mine will release collected water or seepage into a water course.[122] This provision is designed to prevent acid mine drainage and its resulting contamination of waters. When a coal mine is worked out or indefinitely closed, the opening must be properly sealed within ninety days. The same enforcement provision governing coal dust applies to the three unused mine statutes as well. The Director of the Department of Mines is given the same enforcement powers.

Of the statutes discussed in this section, only the West Virginia laws provide for injunctive relief against violators. Under the provisions of the West Virginia Coal Refuse Disposal Control Act,[123] the Director of the Department of Natural Resources may order remedial action with respect to refuse piles. If an operator refuses to obey the order, the Director may apply to the county circuit court for an injunction to enforce the order. In the alternative, the Director may take the necessary remedial action and request the Attorney General to bring suit. The West Virginia Director of Mines is authorized to seek injunctive relief whenever an operator fails to comply with an order or decision of the director, interferes with the director or his representatives, refuses him entry into or inspection of a mine or refuses him access to information or reports.[124]

Civil penalties are a frequently used enforcement measure. The Montana Strip Mined Coal Conservation Act[125] provides a penalty of $100 to $1000 per day for operation without an approved strip mine plan or nonconformity with the plan. The penalty, if unpaid, must be recovered in a civil action brought by the Attorney General. Violations of rules of the Board of Land Commissioners are punished as misdemeanors under the Montana Strip Mined Coal Conservation Act, but no specific form of punishment is indicated in that act.

The West Virginia Director of the Department of Mines is authorized to assess civil penalties against operators or miners who violate the Mines and Minerals chapter.[126] Violation by a mine operator is punishable by a civil penalty of up to $3000. Willful violation by a miner may result in a penalty of up to $250. The Director himelf may seek enforcement of these assessments in the circuit court.

The remaining statutes all designate violations of all or some of their provisions as misdemeanors. The Kansas Coal Dust statute[127] provides that violators be fined between $10 and $100. The Indiana Mining Act of 1955[128] punishes violations of the act or obstruction of investigations by fines of up to $500 and/or up to six months imprisonment (unless individual provisions of the act provide different penalties).

West Virginia's Code contains a somewhat similar provision. Violations of any section of the Natural Resources chapter,[129] constitute a misdemeanor punishable upon conviction by a fine of $20 to $300 and/or between ten to one-hundred days imprisonment. The Coal Refuse Disposal Control Act[130] is contained in this chapter and prescribes no different penalties.

The West Virginia Mines and Minerals chapter[131] defines as misdemeanors any willful violations of health and safety standards or knowing violations or failures to comply with departmental orders in final decisions. The first offense is punishable, upon conviction, by a fine of up to $5000 and/or up to one year in jail. Subsequent offenses may be punished, upon conviction, by fines not to exceed $10,000 or imprisonment for up to three years or both.

SAND AND GRAVEL

Five of the states[132] surveyed have laws governing sand and gravel removal or mining. Although not a major source of nonpoint pollution, sand and gravel removal, like other mining operations, may contribute to erosion, runoff and sedimentation.

Two of the statutes prohibit sand and gravel mining near certain waters. Virginia's Dredging Sand and Gravel provisions[133] make it unlawful to dredge, dig or remove any part of any deposit of sand or gravel from a stream or river bed or from any land abutting upon a stream or river. Hawaii[134] prohibits any mining within the shoreline area or within 1000 feet seaward or in ocean waters less than thirty-one feet deep. The law exempted until July 1, 1974 any sand mining operations begun prior to 1970 and permits the planning department of any county to grant other exemptions.

Texas requires that operators obtain a permit to remove or excavate sand from a Gulf Coast beach.[135] Before issuing a permit to remove sand from a public beach, the Commissioners Court (of the General Land Office) is to determine whether removal of sand will create a hazardous condition or make the area more susceptible to storm damage. Cities and towns may authorize removal of sand from public beaches only for the construction of publicly owned and operated recreational facilities.

The removal of sand, gravel, oil, gas or other minerals is regulated in Kansas and Indiana. The Kansas law[136] prohibits removal of such natural products from riverbeds without the consent of the Director of Taxation. The purpose of the act is to insure that proceeds from the sale of these products do not escape taxation. It does not apply to the removal of such products for use in public construction or for the domestic use of the person taking it. The Indiana statute[137] gives the Department of Natural Resources the power to regulate forest lands. Included in this grant of authority is the power to issue permits for the removal of sand, gravel, coal, stone, gas, oil, or other minerals from forest lands. The Director may impose any conditions he deems necessary on the removal of these products, which could, of course, include conditions respecting the protection of water resources from contamination by mining activities.

Virginia, Texas and Kansas provide equitable remedies for violations of their sand and gravel statutes. A private individual may seek injunctive relief against violations and obtain treble damages for injury to property under the Virginia law.[138] In Texas,[139] the Attorney General may seek and obtain injunctive relief on behalf of the state to prevent removal of sand from Gulf Coast beaches in violation of the act. Under the Kansas Sand and Gravel chapter,[140] the Attorney General or the County Attorney may bring any suit necessary to protect the property rights of the state. The court is authorized to grant injunctive relief and/or civil damages to the state. The Director of Taxation, with the consent of the Governor, may bring or defend any suit necessary to protect the state's interests.

The Virginia[141] and Kansas[142] sand and gravel statutes punish violations of their provisions as misdemeanors, but only the Kansas act specifies a penalty. Upon conviction, violators may receive fines of $25 to $1000 and/or six months imprisonment. Obstructing the Department of Natural Resources in the conduct of its duties is a misdemeanor under the Indiana statute.[143] Upon conviction the violator may be fined up to $300. Taking minerals in violation of the statute is also a misdemeanor and is punishable upon conviction by a fine of $50 to $1000 per day.

Texas[144] punishes violations of the Gulf Coast and Public Beach Areas section of the statute by a fine of between $10 to $200 per day per operation. The Hawaii Shorelines Setbacks[145] statute contains no enforcement provisions.

OIL AND GAS

Nine of the states[146] surveyed have enacted legislation governing oil and gas wells, which could have an impact on water pollution from mining as a nonpoint source. At any phase of the operation -- exploration, drilling, operation of the well, abandonment, plugging, waste disposal -- contaminants may be released which can lead to pollution of groundwater and surface waters.

The relevant oil and gas production laws have been classified into three broad categories. The first includes comprehensive legislation which regulates all or most of the phases of production. The second is a group of statutes governing abandonment and plugging of wells. The last category consists of waste disposal laws.

The largest category is composed of the comprehensive legislation regulating all or many phases of oil and gas production. Some of this legislation was enacted expressly to protect water resources, while other statutes have as their primary goal the conservation of oil and gas resources and may or may not have the protection of water resources as a secondary goals. Those statutes which specifically seek to prevent water pollution may facilitate regulation of water endangering activities; however, even those statutes which make no mention of pollution but encourage waste prevention and other sound mining practices may, as a practical matter, contribute to the prevention of water pollution. One of the ways oil and gas are wasted is by allowing their escape or spillage. Whether the statute prevents this escape to conserve oil and gas or to protect the water, the resulting improvement in water quality is the same.

Six states have enacted seven laws regulating various phases of oil and gas production as a means of conserving oil and gas. The statutes of Utah[147], Indiana,[149] Idaho,[150] and two in Michigan[151] also contain provisions calling for the protection of water. All seven statutes, the last being West Virginia's[152], prohibit the waste of oil and gas. Permits are required to drill for oil and gas under the conservation statutes of Texas, Indiana, Michigan, and Idaho. (West Virginia licenses the drilling and plugging of wells but not under its oil and gas conservation statute.) All of the laws provide for state regulation, whether by permit or rule, of drilling, spacing, casing and plugging of wells as necessary to prevent waste.

Legislation requiring casing of wells can protect subsurface water-bearing strata from transfer of fluids. Plugging regulations prevent seepage which may run directly into water or which may destroy vegetation and thereby increase the possibility of soil erosion. Disposal of oil brines and other wastes may also pollute waters if not accomplished properly. Each of the seven conservation statutes regulates casing and plugging, and some[153] also regulate disposal.

Utah's legislation creates a Board of Oil and Gas Conservation within the Department of Natural Resources.[154] The Board may promulgate rules and regulations and do whatever is necessary to achieve the purposes of the act and to carry out its mandates. The Board is specifically authorized to require that wells be operated in a manner calculated to avoid waste, spillage, and pollution of fresh water supplies.

The Texas Railroad Commission is responsible under that state's laws[155] for making and enforcing rules for the conservation of oil and gas. The Texas oil and gas conservation statute governs not only the production and storage of oil and gas but also the transportation of these commodities.

The Oil and Gas Division of the Indiana Department of Natural Resources is given authority under the Oil and Gas Control Agency chapter[156] to promulgate rules and regulations not only to prevent waste of oil and gas, but also to prevent pollution of lakes, rivers and watercourses by oil and gas wells. The manner of drilling, plugging, casing, and disposal are proper subjects for regulation.

West Virginia's Oil and Gas Conservation statute[157] places administrative and enforcement powers in the Oil and Gas Conservation Commission. Spacing, drilling, pooling, and operating of wells may be regulated by the Commission. Secondary recovery methods are prescribed in the act as a conservation measure but may incidentally prevent water pollution.

The Idaho Oil and Gas Conservation Act[158] has a water pollution prevention provision which seems particularly effective. The issuance of drilling permits is conditioned on the approval of the operations plans by the Department of Water Resources. If the Department feels that fresh water supplies are endangered it may order that conditions be met to protect the water supplies before the Oil and Gas Conservation Commission may issue the permit. The Commission is composed of members of the Board of Land Commissioners who have responsibility for regulating other types of mining as well. The Commission may issue rules, regulations, and orders, hold hearings and sue and be sued.

The Michigan Conservation of Oil, Gas and Minerals chapter[159] contains two statutes whose purpose is to prevent waste of oil and gas. The Supervisor of Wells is responsible under the first statute for regulating drilling, operating and sealing of wells.[160] These operations must, however, be performed so as to prevent pollution of fresh water supplies. The Supervisor may issue rules, regulations, and orders and hold necessary hearings to enforce the act, prevent waste and protect water supplies.

The Michigan Mineral Well Act[161] also contains references to water pollution, prohibiting, inter alia, surface waste which is defined to include damage to or destruction of surface waters or soils. The Act is administered by the Supervisor of Mineral Wells who may issue rules, regulations and orders necessary to enforce the Act. Among the phases of activity which may be regulated by the Supervisor are well locating, drilling, deepening, casing, sealing, injecting, plugging, and storage. Waste disposal well drilling or converting requires a permit from the Supervisor. Under either statute the Supervisor may bring legal actions to enforce the law, rules or regulations, with the Attorney General representing the Supervisor.

West Virginia has a second comprehensive article, entitled "Oil and Gas Wells,"[162] which in contrast to the above seven statutes, seems to place more emphasis on preventing water pollution. The article prohibits the drilling, plugging or fracturing of a well without a permit. Like Idaho,[163] West Virginia conditions the granting of a permit on the absence of or avoidance of threats to water quality. If the Division of Natural Resources believes that well drilling threatens water quality and purity, standards may be imposed which the applicant must meet to avoid polluting state waters.[164] Once a permit is issued by the Department of Mines, the driller must permanently line the well walls with cement casing to protect fresh water bearing strata. Abandoned wells must be plugged at each strata -- oil, gas and water bearing -- to prevent seepage and contamination. To insure compliance a bond of $2500 per well or $15,000 for a series of wells is to be posted before drilling begins,[165] and may be forfeited for violations of any rules or regulation.[166] In addition to the bond, every applicant must pay a fee of $100 per well into a special reclamation fund used to reclaim abandoned wells. To enforce the law, the Department of Mines is given the authority to issue rules, regulations and orders, hire inspectors, hold hearings, and bring legal actions. As a further deterrent to pollution causing activities, the article establishes a rebuttable presumption in civil suits that any contamination of a fresh water source or supply within 1000 feet of any oil or gas well drilling was caused by such drilling.

Texas and Indiana are two other states with comprehensive nonconservation oriented statutes requiring the licensing of well drilling, the prevention of water pollution and the filing of a bond to insure compliance with rules and regulations.[167] As in the conservation statute, the Texas Railroad Commission is responsible for enforcing the Oil and Gas Rules and Regulations article.

The Commission may issue and enforce rules, regulations and orders in connection with the drilling, operation, abandonment and plugging of wells and the production of oil and gas in general. Prevention of the pollution of streams, public waters, and subsurface water bearing strata is to be one of the goals of the

Commission's regulatory activities. The bond required to be posted in both Texas and Indiana to cover the cost of plugging a well is $5000 per well or a $10,000 blanket bond covering all wells.[168] Inspections and investigations are authorized to be conducted under both statutes. In Indiana the Department of Natural Resources[169] has many of the same powers given the Texas Railroad Commission. The Department may promulgate rules and regulations governing the manner of drilling, use and plugging of both test holes and wells. As in Texas, prevention of water pollution is to be considered and promoted by the administrative agencies both in promulgating rules and regulations and in issuing permits for drilling.

The Texas legislature enacted two other provisions regarding development of oil and gas in water, riverbeds, or channels. The first[170] prohibits pollution related to such development and authorizes the Commissioner of the General Land Office and the Game, Fish and Oyster Commissioner to enforce the law. The second[171] requires lessees of state land along riverbeds to exercise the highest degree of care and utilize proper safeguards to prevent stream pollution. The Board of Mineral Development has authority under this section of the Code.

Michigan also has a statute[172] which regulates leases of state land for oil and gas production. The State Supervisor of Wells is given jurisdiction and control over all oil and gas exploration, development, handling and use under a lease of state lands. The statute specifically subjects all lease holders to any statutes, rules, or regulations for the prevention of water pollution. Binding rules and regulations may also be promulgated by the Supervisor to further protect water resources. The statute[173] requires the written consent of all littoral landowners as a prerequisite to drilling an off-shore well within 500 feet of land fronting on the Great Lakes.

The Kansas Oil and Gas Wells regulatory provisions[174] place emphasis on proper casing and plugging to prevent pollution of surface water and water bearing strata. The statute prohibits the exploration or plugging of wells without a license. The Corporation Commission may issue rules and regulations governing operation and abandonment of wells, including the type of equipment which may be used to drill wells with minimum pollution. The Commission has authority to enforce the act through legal action.

The Industrial Commission and the State Geologist are responsible for the administration and enforcement of North Dakota's oil and gas law.[175] Under two separate chapters of the Mining and Gas and Oil Production title[176] the Commission is given power to promulgate rules, regulations and orders governing the drilling, casing, plugging and operation of wells. All of these operations are to be done in such a manner as to prevent pollution from oil. As in the majority of other statutes, a permit is required to drill for oil or gas. Supervisory and enforcement powers are vested in the State Geologist. However, the Commission, rather than the Geologist, is given the power to bring enforcement actions in court.

The final comprehensive statute is that of Virginia, which authorizes the Chief Mine Inspector of the Division of Mines to prevent, inter alia, the pollution of freshwater supplies by oil, gas or salt water. The Inspector has supervision over and may promulgate rules and regulations governing the location, drilling, production, casing, abandonment, plugging and filling of all wells and over mining operations in close proximity to any well. A permit to drill must be obtained from the Inspector prior to commencement of operations. The Inspector has the additional authority to require a $1000 bond with the permit application if in the opinion of the Inspector it is necessary to insure compliance with regulations,[177] he may also take actions to enforce the law.

Penalties

With the exception of the three nonconservation Texas statutes, all of the statutes discussed in this section authorize injunctive relief to enforce their provisions and the rules and regulations promulgated thereunder. The Texas Railroad Commissioner is authorized in the conservation statute to act through the Attorney General to enjoin waste of oil and gas and violation of the Act.[178] However, injunctive powers are not given to the Board of Mineral Resources, the Commissioner of the General Land Office, or the Game Fish and Oyster Commission. The oil and gas conservation statute authorizes either the Attorney General or a county district attorney joined by the Attorney General to seek and obtain injunctive relief.

The Indiana Oil and Gas Control Agency statute also requires the Department to obtain injunctive relief through the Attorney General.[179] Michigan's enforcement provisions are somewhat confusing. Under both the Mineral Well Act[180] and the Supervisor of Wells[181] provisions, the Supervisors "may bring procedures at law or in equity for the enforcement of" the acts and rules promulgated thereunder. Yet the next line states that the Attorney General shall represent the Supervisors in all such actions.

Kansas allows the Corporation Commission or the Attorney General or the county attorney to bring an action to enforce the oil and gas wells provisions by an injunction or a mandatory injunction.[182]

Under the statutes of each of the other states discussed above -- Virginia,[183] West Virginia,[184] Utah,[185] Idaho[186] and North Dakota[187] -- the administrative agency or officer may bring actions for injunctive relief without going through the Attorney General. In Virginia, North Dakota, Utah and Idaho, citizens may also seek injunctive relief against violation of the acts. In Idaho, Utah and North Dakota, if the Commission brings an injunction action, the citizen may be precluded from doing so.

A variety of other civil remedies are provided in the comprehensive measures. Where a bond is or may be required as a prerequisite to obtaining a permit, bond forfeiture is a means of enforcement. The West Virginia Oil and Gas Wells provisions contain examples of several effective administrative remedies. In each of the states where a permit is required to drill, the agency may deny the permit until conditions are met. West Virginia authorizes denial until water quality standards can be maintained. The Oil and Gas Inspector is authorized to issue cease operations orders which after notice and an opportunity for a hearing may be enforced in a civil action.[188] The Texas Public Lands section[189] offers another example of a cease operations order. Most of the statutes discussed in this section authorize the administrative agency to issue orders, and a cease operations order is probably authorized. The Michigan Supervisor of Wells statute authorizes the Supervisor to first seize illegal oil and then institute confiscation proceedings.[190]

All of the statutes requiring a bond to cover the cost of plugging the well also authorize the agency to plug the well if the operator fails to -- using the bond to pay expenses. The Indiana Oil and Gas provisions,[191] in addition to requiring a bond, authorize the Oil and Gas Division to repair improperly plugged wells and, if the bond is insufficient to cover expenses, to take a lien on the equipment and leasehold. The Michigan Supervisor of Wells provisions authorize the bringing of a suit for damages to recover expenses so incurred.[192]

The Texas Pollution of Streams statute[193] contains an example of another type of administrative remedy -- cancellation of permits for failure to develop a well in a non-polluting way.[194]

Private remedies exist in a number of the statutes discussed. Actions for damages are the most frequently contemplated citizen suits. Such actions may be maintained under the Idaho Oil and Gas Conservation Act[195] for damages caused by any violation, under the West Virginia oil and gas wells provisions[196] for contamination of water supply, and under the Indiana Test Holes Act[197] for reimbursement of funds spent repairing a test hole for the permit holder.

Civil penalties of $1000 per day per offense are authorized for violations of the Texas Oil and Gas conservation provisions,[198] the Michigan Mineral Well Act,[199] the Michigan Supervisor of Wells provisions,[200] and the North Dakota Subsurface minerals sections.[201] The Michigan Leasing of State Lands[202] provision imposes an unusual civil penalty on persons mining without a lease. The penalty is equal to three times the value of the material taken.

Criminal enforcement is provided in all but the Texas statutes. Falsification of records or reports is designated in Utah,[203] Idaho,[204] West Virginia (oil and gas conservation)[205] and North Dakota[206] (subsurface mining) as a misdemeanor. This crime is "punishable upon conviction by a fine of up to $5000 and/or six months imprisonment." In Michigan[207] (Supervisor of Wells provision) a violation is punishable as a felony and upon conviction a violator may receive a fine of up to $3000 and/or three years imprisonment. Michigan[208] also punishes mining without a lease (required by the Leasing of State Lands provisions) as a felony. Violators are punishable upon conviction by a fine of up to $500 and/or up to two years imprisonment.

Violations of the substantive provisions of the acts themselves seem to be punished less severely than the recording violations. In Michigan,[209] for example, violations of the Supervisor of Wells statute regulating drilling, operating and sealing of wells are only misdemeanors punishable by fines of no more than $1000 and a maximum of ninety days in jail.
In Indiana, the violation of the Test Holes Act[210] or rules or regulations promulgated thereunder is a misdemeanor punishable upon conviction by a fine of between $25-$100 per day. Violation of the oil and gas drilling provisions, regulations, rules or orders is punishable upon conviction by a fine of $100 - $500 per day and/or up to sixty days imprisonment.[211] The Virginia statute[212] also punishes violations of its sections as misdemeanors. Upon conviction violators may receive fines of between $25-$500 or between ten days to one year imprisonment.

The West Virginia Oil and Gas Conservation Act[213] punishes violations of its provisions, rules or regulations by fines of up to $1000. Such violations are misdemeanors. The West Virginia Oil and Gas Wells[214] article designates a number of different misdemeanors, all punishable upon conviction by fines of up to $2000 and/or up to twelve months imprisonment. The misdemeanors include violations of the permit requirement, violation of any provision of the article, rule, or regulation promulgated thereunder, and willful violation of any section of the Act prescribing the manner of drilling, casing, plugging or filling a well.

The Kansas Oil and Gas Wells provisions also designate various offenses, all of which are misdemeanors.[215] They include allowing gas or oil to escape ($50 to $200 per day fine and/or thirty days to six months imprisonment per day's violation); improper casing ($500 fine); failure to exclude salt or mineral waters from fresh water supplies ($1000 maximum fine); and violation of provisions regarding drilling and abandonment (fine of up to $500, imprisonment up to six months).

WATER WELLS AND SALT WELLS

Texas and Minnesota regulate the operation of water wells. Michigan regulates salt wells. Texas has two statutes governing water wells. The first, part of the Water Code,[216] requires that any owner of a water well who encounters salt water or water containing anything injurious to vegetation plug the well. By protecting vegetation the statute prevents soil erosion and resulting water pollution. Escaping salt or mineral laden water is another source of pollution abated by the statute. The Texas Water Well Drillers Act[217] requires persons drilling water wells to register with the Water Well Drillers Board. The Board may promulgate rules and regulations providing for proper plugging of wells to avoid water pollution. The Board may revoke the registration of persons failing to plug properly or violating the Act, rules or regulations.

The Minnesota Code chapter[218] on Well Water Contractors prescribes the licensing of drillers to prevent the wasting of ground water. The State Board of Health is responsible for establishing standards for well design, location, and construction and for otherwise regulating drilling and construction.

The mode of plugging abandoned salt wells is regulated by provisions of the Michigan Conservation: Oil, Gas and Minerals chapter.[219] The State Salt Inspector is to supervise plugging to insure that fresh water is excluded from the salt bearing rock. Any salt well owner is authorized to plug abandoned wells at the expense of the owner of the land. It should be noted, however, that these provisions are applicable in only two Michigan counties and, further, that idle or abandoned salt producing wells as are sunk to the rock salt strata are not covered.

Of the statutes surveyed the Texas Water Well Drillers Act[220] provides the most effective enforcement provisions. Registration may be revoked for violation of the Act or rules and regulations of the Board. In addition, such violations are punishable by a civil penalty of up to $1000 per day. The Texas Water Wells Statute[221] punishes violations of its provisions as misdemeanors. Upon conviction, violators may receive fines of between $10 to $500.

Minnesota prescribes no monetary penalties. Violation of accepted standards of drilling may result in license revocation while willful violation of any of the statute sections constitutes a misdemeanor.[222] The Michigan salt wells statute[223] allows civil action for expenses to be filed by a person who plugs the well of another. In addition, a civil penalty of up to $200 per violation may be assessed against persons violating the statute. Half of this penalty is given to the informer and half to the county.

MISCELLANEOUS

A number of statutes appear in the laws of the states surveyed which, while relevant to control of water pollution from nonpoint sources, are rather unique and therefore, difficult to compare. A description of these statutes follows.

Hawaii has created forest and water reserve zones which are governed by, and for which zoning regulations are promulgated by, the Department of Land and Natural Resources.[224] The statute specifically authorizes the Department to promulgate regulations prohibiting unlimited soil mining and, therefore, is a strong deterrent to soil erosion. Violation of such a regulation would be punishable by a fine of up to $500, and the statute also authorizes citizen suits to enjoin violations.

Minnesota and Michigan have statutes governing the mining of iron ore. The Michigan[225] law is not actually a regulatory statute, merely declaring that mining for iron ore is in the public interest, and authorizing the Department of Conservation to acquire land by condemnation when the private miner cannot. This action may only be taken when the miner needs the land to develop and operate water supply areas in order to prevent unlawful water pollution from the land already owned.

Minnesota's statute[226] is regulatory, and requires operators to obtain permits to mine for iron, copper or nickel and prohibits mining under public waters without State authority. The Commissioner of Natural Resources is empowered to issue permits to prospect and mine for iron ore on state lands, imposing such conditions as he deems necessary, which could include safeguards for the protection of fresh water sources. Consent from the state must be obtained before public waters may be drained to facilitate mining, and a license must be obtained to flood state lands for the same purpose. Again, the Commissioner may impose conditions including the use of methods which limit water pollution on either grant of authority. Violation of the provision prohibiting unauthorized mining under public waters is a felony punishable upon conviction by a fine of up to $10,000 and/or up to five years imprisonment.

Wisconsin similarly requires a permit to divert waters of surface streams or lakes for mining purposes. The Department of

Natural Resources is empowered to fix conditions on the issuance of permits reasonably necessary to preserve the health, safety and welfare of the public.[227] Conditions may also be imposed relative to the restoration of waters upon completion of mining operations. In a provision similar to Michigan's, the statute authorizes the acquisition by purchase or condemnation of land necessary for the conveyance of water used in mining operations. Violations of the permit conditions or the permit requirements are punishable by fines of up to $1000 and/or up to six months imprisonment.

A Texas statute[228] regulates the lease for mineral development of State lands near Caddo Lake or its tributaries and provides that any mining operations on this land must be conducted in a manner to prevent pollution of the water resulting in the destruction of fish or wildlife. The Commissioner of the General Land Office is authorized to prescribe and enforce rules and regulations necessary to the administration of this provision, but no penalties are prescribed.

The Indiana Legislature has enacted a statute[229] relative to mining and excavations in cities or near city streets, and King County, Washington[230] has enacted an ordinance regulating much the same thing. The Indiana City and Town Government title vests authority in the local Board of Public Works to license the making of excavations in or the removal of coal rock gravel or other material from the surface or beneath the surface of any street, alley or public place in the city. The Board has power to require a bond for damages caused by such excavation.[231] The provision does not expressly allow the Board to impose conditions regarding water pollution on the issuance of the license, but it might be argued that water pollution constitutes damage for which the bond may be forfeited.

The King County Ordinance[232] was enacted to protect the public and its property and to minimize adverse effects on the environment by regulating excavations, grading, and earthwork construction, including cuts and fills, gravel pits, dumping, quarrying and mining operations within the county. The Director of Building Division, Department of Community and Environmental Development is given enforcement authority. Included in this authority is the power to make inspections and notify owners to repair or eliminate hazards.

Permits are required to do grading work, although numerous exceptions are listed. Temporary permits may be issued by the Director for excavations, quarrying, mining, and removing of soil, peat, sand, gravel, rock and other natural deposits. However, before the temporary permit may be issued, the application must be referred to the Department, the Land Use Management Division and the Department of Public Works for review and recommendations. The Department of Public Works is to review the applications and any plans submitted to determine their effects on drainage. (In addition to approval by these departments, any permit requires approval of Federal, state and local agencies having jurisdiction.)

Upon issuance of the permit, the permittee must post a reclamation bond to ensure correction of drainage and geological hazards. An operation bond must also be posted to ensure correction of deficiencies affecting, inter alia, water quality. This bond may not exceed $1000. If permittee fails to make necessary corrections, the bond will be forfeited and used to reclaim and correct.

The ordinance prescribes several operating conditions and standards of performance which may have an impact on nonpoint source water pollution. The degree of slope of any cut or fill is regulated. All disturbed areas must be prepared and maintained to control soil erosion. Waste material must be removed prior to filling. The type of material used to fill is also regulated. Provision must be made for proper drainage to prevent erosion and sedimentation. Included among conditions designed to prevent erosion and sedimentation are revegetation, restoration and setback requirements. Finally conditions are imposed with respect to reclamation of excavations made to a water producing depth.

Violation of any provision of the ordinance or order issued by the Director constitutes a misdemeanor, and each day's violation is a separate offense. The ordinance prescribes a cumulative civil penalty of $10 per day per violation plus costs. The Director may also seek legal or equitable relief to enjoin violations or abate unlawful conditions. Appeals from final decisions of the Director may be taken to the County Board of Appeals.

PLUGGING

Eight of the statutes studied address themselves specifically to plugging or capping of abandoned or unused wells. The Indiana Code devotes a chapter[233] to the prevention of water pollution by plugging of wells, and places the responsibility for plugging or repairing wells with the operator. If, after notice of defects and an opportunity for a hearing, the operator has not plugged or repaired a well, the Department of Natural Resources may do so. Similarly, private individuals threatened or injured by an improperly plugged or unplugged well may enter the land and remedy the condition.[234] Any person who does so has a cause of action against the person legally obligated to plug and repair for the cost and expense. As an incentive to operators to repair, the act provides that action to repair or plug a well upon the request of the Department may not be construed as an assumption of responsibility to replug or repair or as an admission of liability for damages from pollution.[235] Nor is anything in the chapter to be construed as placing the obligation to remedy such conditions on the landowner of the well unless he is also the operator. A later chapter prohibits the escape of of gas or oil from an improperly confined well for more than two days,[236] and authorizes the possessor of the land to make repairs, then sue the owner or lessee of the well for costs.

Texas does place an obligation to plug an abandoned well on owners as well as operators.[237] The primary responsibility lies with the operator, but upon failure to comply, nonoperating owners of the well will be required to remedy the condition, and upon their failure, the duty to plug falls on the landowner.[238] Nonoperating well owners and landowners are responsible for only their proportionate share of the cost of plugging; however, if the landowner does plug or replug the well, he may bring an action against the operator and nonoperator for expenses and may impose a lien upon the interests of the others.[239] As in Indiana, the administering agency, the Railroad Commission, has some authority after notice of defect and an opportunity for a hearing and compliance, to plug the well to avoid additional pollution of fresh water. However, the Commission is somewhat more limited than the Indiana Department as to when it may plug, only being permitted to do so if the legally obligated parties cannot be found or do not have sufficent assets. If the Commission does plug a well, it has a cause of action: first, against the operator, to be secured by a lien upon his interest, fixtures and equipment; second, against the nonoperator to be secured by a lien upon his interest; and third, against the landowner, to be similarly secured.[240] A provision similar to Indiana's states that payment of money to the Commission is not admissible in a suit in which the person's obligation to plug is at issue. In enforcing the act, the Commission is given the same enforcement powers as are given in Title 102 of the statute.

At the complaint of a citizen, the owner of a mine in Kansas must, at his own expense, enclose, fill up or cover an abandoned well or mine.[241] If the owner fails to comply, the township in which the well is located must do so if, in the judgment of the township trustees, the condition is dangerous. The expenses for this operation are obtained from the county fund and then assessed against the property owner as additional property taxes. This assessment becomes a lien upon the premises.

Texas has two statutes, one of which is uncodified, requiring the plugging of wells which endanger the quality of certain rivers. The Colorado River Municipal Water District[242] may prevent pollution of that river by adopting any necessary rules and regulations. The District may also cap abandoned wells and take other practical pollution control measures. The Oil and Gas Division of the Railroad Division[243] has authority to cap improperly plugged wells which are presently permitting salt water to flow into the Frio River.

Virginia and West Virginia have statutes regulating the plugging of oil or gas wells, particularly when they lie near a coal mine. The Virginia mines and mining title[244] requires that all abandoned wells be plugged and that the Chief Mine Inspector be notified of intent to abandon. The title itself details the manner of filling and plugging which must be followed. A different procedure must be followed if the well penetrates workable coal beds. The title also contains provisions governing the storage of oil in wells. This section requires that oil must be stored in a manner to avoid pollution of fresh water bearing strata, water wells, and public water supplies. Preventable waste or escape of oil or gas is prohibited.

West Virginia's statute[245] prohibits the injection of gas for storage into a working coal seam. Gas storage operators are required to plug or recondition any well found within a storage area. Any well not used for storage must be plugged. A storage well must be relined as it passes through any coal stratum. The Deputy Director of Oil and Gas of the Department of Mines is responsible for enforcement of this statute and may issue orders to enforce it. The effectiveness of the act may be limited by the number of exemptions granted. Although strip mining is the primary method of coal mining in the state, the act does not apply to it or to auger mines, or to original extractions of natural gas, crude oil or coal.

Plugging by the state or citizens with a cause of action against the party legally obligated to plug is the primary method of enforcement under these particular statutes. This is the sole remedy available under the Indiana Plugging of Wells chapter,[246] the Kansas Wells and Excavations provisions, [247] and the Texas River statutes.[248]

The Texas Plugging Abandoned Wells article[249] authorizes the Railroad Commission to enforce the article and Commission rules, regulations and orders in the same manner and upon the same conditions as provided for in Title 102, which is a long title with numerous penalty and enforcement provisions. However, article 6036 of that Title is a general penalty provision, stating that, in addition to other penalties provided in individual provisions, violations of Title 102 or the Commissions's rules and regulations may be punished by a penalty of up to $1000 per day. The fine is one enforcement measure available to the Commission in enforcing the abandoned wells article. Violation of the Indiana chapter[250] prohibiting escape of gas or oil is punishable by a fine of between $50 to $200 for the first violation and by a fine of between $200 to $500 for subsequent violations.

The Virginia and West Virginia plugging and storage provisions are the only ones which provide injunctive relief. Under the Virginia statute,[251] the Chief Mine Inspector or an injured citizen may sue for injunctive relief to enjoin violations of the provisions regarding plugging of abandoned wells or storage of oil or gas in wells.[252] The Department of Mines or an operator are authorized to institute proceedings for injunctive relief to restrain violations of the article or to enforce obedience therewith. The Virginia statute[253] provides one other civil remedy for failure to drill, plug, or abandon a well properly. The bond filed to obtain a drilling permit may be forfeited in whole, or in part.

West Virginia also provides an additional civil remedy.[254] Storage operators may bring actions for damage caused when a mine operator gives improper notice of intent to open or reopen a coal mine near a storage area. This action also constitutes a misdemeanor. Violation of any order of the West Virginia Department of Mines constitutes a misdemeanor punishable upon conviction by a fine not exceeding $2000 or imprisonment for up to 1 year or both.[255] Violation of the plugging or storage provisions of the Virginia Code constitutes a misdemeanor.[256]

DISPOSAL

Three statutes in the states surveyed deal solely with disposal of waste material. Texas has enacted a Disposal Well Act[257] requiring that persons wishing to drill a disposal well for oil and gas or industrial or municipal waste must first obtain a permit from the Railroad Commission. Several conditions must be met before a permit will be issued. Safeguards must be taken to ensure that existing oil and gas wells are not endangered and that surface water is not polluted by disposal products. Proper casings must be provided in order to safeguard subsurface fresh water supplies. The Commission may adopt rules and regulations necessary for the performance of its functions, and the Water Development Board is authorized to submit comments to the Commission advising it on the acceptability of any proposed well.

In Kansas,[258] the State Corporation Commission and the Board of Health must approve plans for the disposal of brines and mineralized waters at oil and gas sites to prevent water pollution. The Board may determine that the most acceptable means of disposal is by disposal well. The owner may challenge this finding at a hearing before the Commission. If a disposal well is required, it must meet the requirements for minimum depth established by the Commission, and the Act prohibits use of excessive pressure to dispose of waste.

The Virginia Mines and Minerals Title contains a chapter[259] regulating the design, construction and inspection of refuse piles and water and silt retaining dams. The Chief Mine Inspector is responsible for inspections and enforcement, and he may order hazardous conditions corrected.

Only the Texas[260] and Kansas[261] statutes contain penalty provisions. The Virginia statute[262] authorizes the Chief Mine Inspector to order compliance but indicates no punishment for failure to comply. Texas punishes violations of the Disposal Well Act or drilling permit provisions by penalties of up to $1000 per day. In addition, the Act expressly indicates that possession of a permit does not relieve an operator of civil liability for damages caused.

In Kansas,[263] violation of the prohibition against using excess pressure is a misdemeanor punishable upon conviction by a fine of up to $500 or up to one year imprisonment or both. Violation of the Commission's requirements as to disposal well depth also constitutes a misdemeanor punishable upon conviction by a fine of $50 to $500. For each of these misdemeanors each day the violation occurs constitutes a separate offense.

FOOTNOTES

MINING

[1] West Virginia, Virginia, Montana, North Dakota, Idaho, Kansas, Indiana Missouri, Hawaii, Colorado.

[2] West Virginia, Virginia, Montana, North Dakota, Idaho, Kansas, Indiana.

[3] Missouri, Indiana, Hawaii, Colorado, Montana.

[4] Mo. Rev. Stat. § 444.760-444.786 (Supp. 1973).

[5] Ind. Ann. Stat. §§ 14-4-2-1 to 14-4-2-14 (1973).

[6] W.Va. Code Ann. §§ 20-6-1-1 to 20-6-12 (1973), as amended, (Supp. 1974).

[7] Va. Code Ann. § 45.1-198, 45.1-200 (1974).

[8] Id.

[9] Va. Code Ann. § 45.1-180 to 45.1-197.2 (1974).

[10] Id. at § 45.1-182

[11] Va. Code Ann. §§ 45.1-216 to 45.1-220 (1974). "Orphaned Lands" are defined in section 45.1-216 as lands which have been "distrubed by coal surface mining operations which were not required by law to be reclaimed or which have not in fact been reclaimed."

[12] Id. at § 45.1-218.

[13] Va. Code Ann. §§ 45.180 to 45.1-197.2 (1974).

[14] Id. at § 45.1-183.

[15] Mont. Rev. Codes Ann. §§ 50-1201 to 50-1226 (Supp. 1974).

[16] Id. at §§ 50-1207, 50-1208.

[17] Mont. Rev. Codes Ann. §§ 50-1034 to 50-1057 (Supp. 1974).

[18] Mont. Rev. Codes Ann. §§ 50-1601 to 50-1617 (Supp. 1974).

[19] Id.

[20] Idaho Code Ann. § 47-1501 to 47-1518 (Supp. 1974).

[21] N.D. Cent. Code §§ 38-14 1 to 38-14-13 (1972), as amended, (Supp. 1973).

[22] Id. at § 38-14-01.

[23] Id. at § 38-14-05.

[24] Id. at § 38-14-05.1.

[25] Kan. Stat. Ann. §§ 49-401 to 49-424 (Supp. 1974).

[26] Ind. Ann. Stat. §§ 13-4-6-1 to 13-4-6-13 (1973), *as amended*, (Supp. 1974.

[27] *Id.* at § 13-4-6-5.

[28] Ind. Ann. Stat. §§ 14-4-2-1 to 14-4-2-14 (1973), *as amended*, (Supp. 1974).

[29] *Id.* at § 14-4-2-5.

[30] Mo Rev. Stat. §§ 444.760 to 444.786 (Supp. 1973).

[31] *Id.* at § 444.774.

[32] Mo. Rev. Stat. §§ 444.500 to 444.755 (Supp. 1973).

[33] Hawaii Rev. Stat. §§ 181-1 to 181-10 (1968).

[34] Hawaii Rev. Stat. § 183-42 (1968).

[35] Colo. Rev. Stat. Ann. §§ 34-32-101 to 34-32-118 (1974).

[36] For example, the Kansas Mined-Land Conservation and Reclamation Act, Kan. Stat. Ann. §§ 49-401 to 49-424 (Supp. 1974) and the Montana Reclamation of Mining Lands chapter, Mont. Rev. Codes Ann. §§ 50-1201 to 50-1226 (Supp. 1974).

[37] Va. Code Ann. § 45.1-214 (1974); Montana Strip Mined Coal Conservation Act, Mont. Rev. Codes Ann. §§ 50-1401 to 50-1409 (Supp. 1974).

[38] W.Va. Code Ann. §§ 20-6-1 to 20-6-32 (1973), *as amended*, (Supp. 1974).

[39] For example, backfilling, grading, and planting. W.Va. Code Ann. § 20-6-10 (1973).

[40] W.Va. Code Ann. § 20-6-16 (1973).

[41] W.Va. Code Ann. § 20-6-30(c) (1973); Mont. Rev. Codes Ann. §§ 50-1601 to 50-1617 (Supp. 1974); Mo. Rev. Stat. §§ 444.500-444.755 (Supp. 1973).

[42] W.Va. Code Ann. § 20-6-17 (1973).

[43] Va. Code Ann. §§ 45.1-198 to 45.1-215 (1974).

[44] *Id.* at § 45.1-209.

[45] Mont. Rev. Codes Ann. §§ 50-1201 to 50-1226, 50-1034 to 50-1057 (Supp. 1974).

[46] *Id.* at § 50-1209.

[47] *Id.* at § 50-1043.

[48] Mont. Rev. Codes Ann. §§ 50-1039, 50-1211 (Supp. 1974).

[49] Mont. Rev. Codes Ann. §§ 50-1601 to 50-1617 (Supp. 1974).

[50] *Id.* at § 50-1607.

[51] Idaho Code Ann. §§ 47-1501 to 47-1518 (Supp. 1974).

[52] *Id.* at § 47-1513.

[53] N.D. Cent. Code § 38-14-04 (Supp. 1973).

[54] Kan. Stat. Ann. §§ 49-401 to 49-424 (Supp. 1974); Ind. Ann. Stat. § 13-4-6-1 to 13-4-6-13 (1973).

[55] Kan. Stat. Ann. § 49-406 (Supp. 1974).

[56] Ind. Ann. Stat. § 13-4-6-5 (1973).

[57] Ind. Ann. Stat. § 13-4-6-7 (1973).

[58] Kan. Stat. Ann. § 49-416 (Supp. 1974).

[59] Mo. Rev. Stat. § 444.570 (Supp. 1973).

[60] Mo rev. Stat. § 444.500 to 444.755 (Supp. 1973).

[61] Hawaii Rev. Stat. §§ 181-1 to 181-10 (1968).

[62] Colo. Rev. Stat. §§ 34-32-101 to 34-32-118 (1974).

[63] *Id.* at § 34-32-113.

[64] Idaho Code Ann. § 47-1312 to 47-1324 (Supp. 1974).

[65] *Id.* at §§ 47-1312, 47-1315.

[66] Minn. Stat. Ann. §§ 93.43 to 93.51 (Supp. 1973).

[67] *Id.* at § 93.49.

[68] Mich. Comp. Laws Ann. §§ 425.181 to 425.188 (Supp. 1973).

[69] *Id.* at § 425.183.

[70] Mont. Rev. Codes Ann. §§ 50-1501 to 50-1516 (Supp. 1974).

[71] *Id.* at § 50-1503.

[72] Mont. Rev. Codes Ann. §§ 50-1301 to 50-1306 (Supp. 1974).

[73] Ind. Ann. Stat. §§ 14-4-2.1-1 to 14-4-2.1-8 (1973).

[74] See paragraphs immediately following.

[75] Idaho Code Ann. § 47-1513 (Supp. 1974).

[76] Idaho Code Ann. § 47-1321 (Supp. 1974).

[77] W.Va. Code Ann. § 20-6-30(c) (1973).

[78] Kan. Stat. Ann. § 49-405 (Supp. 1974).

[79] Mont. Rev. Codes Ann. §§ 50-1056, 50-1222, 50-1611, 50-1612 (Supp. 1974).

[80] Minn. Stat. Ann. § 93.4 (Supp. 1973).

[81] Mich. Comp. Laws Ann. § 425.188 (Supp. 1973).

[82] Kan. Stat. Ann. § 49-42 (Supp. 1974).

[83] Mo. Rev. Stat. § 444.680 (Supp. 1973).

[84] Mont. Rev. Codes Ann. § 50-1037 (Supp. 1974).

[85] Mont. Rev. Codes Ann. § 50-1038 (Supp. 1974).

[86] Va. Code Ann. § 45.1-212-1 (1974).

[87] W.Va. Code Ann. §§ 20-6-8, 20-6-25 (1973).

[88] W.Va. Code Ann. § 20-6-30(a) (1973).

[89] W.Va. Code Ann. § 20-6-11 (1973).

[90] Mont. Rev. Codes Ann. § 50-1055 (Supp. 1974).

[91] Mont. Rev. Codes Ann. § 50-1612 (Supp. 1974).

[92] W.Va. Code Ann. § 20-6-30(b) (1973).

[93] Idaho Code Ann. § 47-13 (Supp. 1974).

[94] Minn. Stat. Ann. § 93.51 (Supp. 1973).

[95] Idaho Surface Mining Act, Montana Strip Mining and Reclamation Act, Montana Strip Mine Site Act, Montana Reclamation of Mining Lands chapter, Kansas Mined-Land Conservation and Reclamation Act, Hawaii Strip Mining chapter, Minnesota Mineral Lands chapter.

[96] Minn. Stat. Ann. § 93.51 (Supp. 1973).

[97] Idaho Code Ann. § 47-1513(f) (Supp. 1974).

[98] Mont. Rev. Codes Ann. § 50-1056 (Supp. 1974).

[99] Mont. Rev. Codes Ann. § 50-1611 (Supp. 1974).

[100] Mont. Rev. Codes Ann. § 50-1222 (Supp. 1974).

[101] Idaho Code Ann. § 47-1513(f) (Supp. 1974); Minn. Stat. Ann. § 93.51 (Supp. 1973).

[102] Kan. Stat. Ann. § 49-421 (Supp. 1974).

[103] Hawaii Rev. Stat. § 181-9 (1968).

[104] Ind. Ann. Stat. § 13-4-6-13 (1973).

[105] Idaho Code Ann. § 47-1321 (Supp. 1974).

[106] Mont. Rev. Codes Ann. § 50-1513 (Supp. 1974).

[107] Mo. Rev. Stat. § 444.78 (Supp. 1973).

[108] Colo. Rev. Stat. Ann. § 34-32-113 (1974).

[109] N.D. Cent. Code § 38-14-12 (Supp. 1974).

[110] Va. Code Ann. § 45.1-214 (1974).

[111] Va. Code Ann. § 45.1-191 (1974).

[112] W.Va. Code Ann. § 20-6-30(a) (1973).

[113] Mont. Rev. Codes Ann. §§ 50-1401 to 50-1409 (Supp. 1974).

[114] W.Va. Code Ann. §§ 20-6C-1 to 20-6C-8, 22-2-25, 22-1-1 to 22-1-35 (1973); Ind. Ann. Stat. §§ 22-10-8-1, 22-10-8-2, 22-10-13-2 (1974); Kan. Stat. Ann. §§ 49-251, 49-252 (1964).

[115] W.Va. Code Ann. § 20-6C-1 to 20-6C-8 (1973).

[116] W.Va. Code Ann. §§ 22-2-25, 22-1-1 to 22-1-35 (1973).

[117] Id. at § 22-2-25.

[118] Ind. Ann. Stat. §§ 22-10-8-1, 22-10-8-2, 22-10-13-2 (1974).

[119] Kan. Stat. Ann. §§ 49-251, 49-252 (1964).

[120] Ind. Ann. Stat. § 22-10-2-4 (1974).

[121] W.Va. Code Ann. §§ 22-2-5, 22-1-1 to 22-1-35 (1973).

[122] W.Va. Code Ann. § 22-2-71 (1973).

[123] W.Va. Code Ann. §§ 20-6C-6, 20-7-5 (1973).

[124] W.Va. Code Ann. § 22-1-19 (1973).

[125] Mont. Rev. Codes Ann. § 50-1407 (Supp. 1974).

[126] W.Va. Code Ann. § 22-1-20(a) (1973).

[127] Kan. Stat. Ann. § 49-251, 49-252 (1964).

[128] Ind. Ann. Stat. § 22-10-13-2 (1974).

[129] W.Va. Code Ann. § 20-7-9 (1973).

[130] W.Va. Code Ann. §§ 20-6C-1 to 20-6C-8 (1973).

[131] W.Va. Code Ann. §§ 22-1-1 *et seq*., 22-1-20(b) (1973).

[132] Virginia, Hawaii, Texas, Indiana.

[133] Va. Code Ann. §§ 62.1-190 to 62.1-193 (1973).

[134] Hawaii Rev. Stat. §§ 205-31 to 205-37 (Supp. 1974) [Hereinafter referred to as the Shoreline Setbacks statute].

[135] Tex. Rev. Civ. Stat. Ann. art. 5415g (1969), *as amended*, (Supp. 1974).

[136] Kan. Stat. Ann. §§ 70a-101 to 70a-116 (1972), *as amended*, (Supp. 1974).

[137] Ind. Ann. Stat. §§ 14-3-1-13, 14-3-1-14, 14-3-1-17, 14-3-1-22 (1973).

[138] Va. Code Ann. §§ 62.1-192 (1973).

[139] Tex. Rev. Civ. Stat. Ann. art. 5415g (1969), *as amended*, (Supp. 1974).

[140] Kan. Stat. Ann. § 70a-104 (1972).

[141] Va. Code Ann. § 62-1-191 (1973).

[142] Kan. Stat. Ann. § 70a-108 (1972).

[143] Ind. Ann. Stat. § 14-3-1-22 (1973).

[144] Tex. Rev. Civ. Stat. Ann. art. 5415g (1969), as amended, (Supp. 1974).

[145] Hawaii Rev. Stat. §§ 205-31 to 205-37 (Supp. 1974).

[146] Utah, Texas, Idaho, Indiana, Michigan, West Virginia, Kansas, North Dakota.

[147] Utah Code Ann. §§ 40-6-1 to 40-6-17 (1970).

[148] Tex. Rev. Civ. Stat. art. 6008, 6014, 6016 (Vernon's 1962), *as amended*, (Vernon's Supp. 1974) [Hereinafter referred to as the Texas Oil Gas Conservation statute].

[149] Ind. Ann. Stat. §§ 13-4-7-1 to 13-4-7-26 (1973) [Hereinafter referred to as the Indiana Oil and Gas: Control Agency chapter].

[150] Idaho Code Ann. § 47-315 to 47-330 (Supp. 1974) [Hereinafter referred to as the Idaho Oil and Gas Conservation Act].

[151] Mich. Comp. Laws Ann. §§ 319.1 to 319.27 (West 1967), *as amended*, (Supp. 1973) [Hereinafter referred to as the Michigan Supervisor of Wells statute]; Mich. Comp. Laws Ann. §§ 319.211 to 319.236 (Supp. 1973) [Hereinafter referred to as the Mineral Well Act.]

[152] W.Va. Code Ann. §§ 22-4A-1 to 22-4A-15 (1973) [Hereinafter referred to as the West Virginia Oil and Gas Conservation statute].

[153] Idaho Oil and Gas Conservation Act, Idaho Code Ann. §§ 47-315 to 47-330 (Supp. 1974); Indiana Oil and Gas: Control Agency chapter, Ind. Ann. Stat. §§ 13-4-7-1 to 13-4-7-26 (1973).

[154] Utah Code Ann. §§ 40-6-1 to 40-6-17 (1970).

[155] Tex. Rev. Civ. Stat. art. 6008, 6014, 6016 (Vernon's 1962), *as amended*, (Vernon's Supp. 1974).

[156] Ind. Ann. Stat. §§ 13-4-7-1 to 13-4-7-26 (1973).

[157] W.Va. Code Ann. §§ 22-4A-1 to 22-4A-15 (1973).

[158] Idaho Code Ann. §§ 47-315 to 47-330 (Supp. 1974).

[159] Mich. Comp. Laws Ann. § 319.1 *et seq.* (West 1967), *as amended*, (Supp. 1973).

[160] *Id.* at §§ 319.1 to 319.27.

[161] *Id.* at §§ 319.211 to 319.236.

[162] W.Va. Code Ann. §§ 22-4-1 to 22-4-19 (1973).

[163] Idaho Code Ann. § 47-320 (Supp. 1974).

[164] W.Va. Code Ann. §§ 22-4-3a (1973).

[165] W.Va. Code Ann. § 22-4-2 (1973).

[166] *Id.*

[167] Tex. Rev. Civ. Stat. arts. 6029, 6029A (Vernon's 1962); Ind. Ann. Stat. §§ 13-4-5-1 to 13-4-5-11 (1973).

[168] Tex. Rev. Civ. Stat. arts. 6029, 6029A (Vernon's 1962).

[169] Ind. Ann. Stat. §§ 13-4-5-1 to 13-4-5-11 (1973) [Hereinafter referred to as the Test Holes Act].

[170] Tex. Rev. Civ. Stat. art. 5351, 5366 (Vernon's 1962) [Hereinafter referred to as the Pollution of Streams Provisions].

[171] Tex. Rev. Civ. Stat. art. 5421c (Vernon's 1962), *as amended*, (Vernon's Supp. 1974) [Hereinafter referred to as the Public Lands statute].

[172] Mich. Comp. Laws Ann. § 322.427a to 322.429 (1967).

[173] Mich. Comp. Laws Ann. § 322.47a (1967).

[174] Kan. Stat. Ann. §§ 55-101 to 55-142 (1964), *as amended*, (Supp. 1974).

[175] N.D. Cent. Code §§ 38-08-04 to 38-08-17, 38-12-01 to 38-12-05 (1972).

[176] Va. Code Ann. §§ 45.1-108 to 45.1-115, 45.1-141 to 45.1-143, 45.1-105 (1974).

[177] Id. at § 45.1-115; Tex. Rev. Civ. Stat. Ann. art. 6008 (Vernon's 1962), *as amended*, (Vernon's Supp. 1974).

[178] Ind. Ann. Stat. § 13-4-7-25 (1973).

[179] Mich. Comp. Laws Ann. § 319.228 (Supp. 1973).

[180] Mich. Comp. Laws Ann. § 319.17 (Supp. 1973).

[181] Kan. Stat. Ann. § 55-119 (1964).

[182] Va. Code Ann. §§ 45.1-141, 45.1-142 (1974).

[183] W.Va. Code Ann. § 22-4-18 (1973).

[184] W.Va. Code Ann. § 22-4-18 (1973).

[185] Utah Code Ann. § 40-6-9 (1970).

[186] Idaho Code Ann. § 47-325 (Supp. 1974).

[187] N.D. Cent. Code § 38-12-05 (1972).

[188] W.Va. Code Ann. § 22-4-1g(b) (1973).

[189] Tex. Rev. Civ. Stat. Ann. art. 5421c (Vernon's 1962), *as amended*, (Vernon's Supp. 1974).

[190] Mich. Comp. Laws Ann. § 319.21 (1967).

[191] Ind. Ann. Stat. § 13-4-7-23(c), 13-4-7-19 (1973).

[192] Mich. Comp. Laws Ann. § 319.18a (West 1967).

[193] Tex. Rev. Civ. Stat. Ann. art. 5351, 5366 (Vernon's 1962).

[194] Id. at art. 5351 (Vernon's 1962).

[195] Idaho Code Ann. § 47-325 (Supp. 1974).

[196] W.Va. Code Ann. §§ 224-15 (1973).

[197] Ind. Ann. Stat. § 13-4-5-10 (1973).

[198] Tex. Rev. Civ. Stat. Ann. art. 6008 (Vernon's 1962), *as amended*, (Vernon's Supp. 1974).

[199] Mich. Comp. Laws Ann. § 319.235 (Supp. 1973).

[200] Mich. Comp Laws Ann. § 319.20 (Supp. 1973).

[201] N.D. Cent. Code § 38-12-05 (1972).

[202] Mich. Comp. Laws Ann. § 322.428 (1967).

[203] Utah Code Ann. § 40-6-10(c) (1970).

[204] Iaho Code Ann. § 47-325 (Supp. 1974).

[205] W.Va. Code Ann. § 22-4A-14(b) (1973).

[206] N.D. Cent. Code § 38-12-05 (1972).

[207] Mich. Comp. Laws Ann. § 319.19 (1967).

[208] Mich. Comp. Laws Ann. § 322.429 (1967).

[209] Mich. Comp. Laws Ann. § 319.18b (1967).

[210] Ind. Ann. Stat. § 13-4-5-11 (1973).

[211] Ind. Ann. Stat. § 13-4-7-26 (1973).

[212] Va. Code Ann. § 45.1-105(b), 45.1-143 (1974).

[213] W.Va. Code Ann. § 22-4A-14 (1973).

[214] W.Va. Code Ann. § 22-4-1K (1973).

[215] Kan. Stat. Ann. §§ 55-102 *et seq*. (1964), *as amended*, (Supp. 1974).

[216] Tex. Water Code Ann. § 23.001-23.004 (1972) [Hereinafter referred to as the Texas Water Wells statute].

[217] Tex. Rev. Civ. Stat. art. 7621e (Water Aux. Laws Pamphlet 1973).

[218] Minn. Stat. Ann. §§ 156A.01-156A.08 (Supp. 1973).

[219] Mich. Comp. Laws Ann. §§ 319.251-319.253 (1967).

[220] See f.n. 217.

[221] Tex. Water Code Ann. § 23.004 (1972).

[222] Minn. Stat. Ann. § 156A.08 (Supp. 1973).

[223] Mich. Comp. Laws Ann. § 319.252, 319.253 (West 1967).

[224] Hawaii Rev. Stat. § 183-41 (1968), as amended, (Supp. 1974).

[225] Mich. Comp. Laws Ann. § 425.171 (Supp. 1973).

[226] Minn. Stat. Ann. §§ 93.283, 93.34, 93.43 (1964), as amended, (Supp. 1973).

[227] Wis. Stat. Ann. §§ 107.05, 107.06 (1974).

[228] Tex. Rev. Civ. Stat. Ann. art. 5421b-1 (1962).

[229] Ind. Ann. Stat. § 18-1-6-15 (1974).

[230] King.Co., Wash., Grading Ordin. No. 1488 (Jan. 22, 1973).

[231] Ind. Ann. Stat. § 18-1-6-15 (1974).

[232] King Co., Wash., Grading Ordin. No. 1488 (Jan. 22, 1973).

[233] Ind. Ann. Stat. §§ 13-4-4-1 to 13-4-4-8 (1973) [Hereinafter referred to as the Plugging of Wells chapter].

[234] Id. at § 13-4-4-7.

[235] Id.

[236] Ind. Ann. Stat. §§ 13-4-8-1 to 13-4-8-2 (1973).

[237] Tex. Rev. Civ. Stat. art. 6005 (Vernon's 1962), as amended, (Vernon's Supp. 1974) [Hereinafter referred to as the Texas Plugging Wells article].

[238] Id.

[239] Id.

[240] *Id.*

[241] Kan. Stat. Ann. §§ 19-2504 to 19-2506 (1974).

[242] Tex. Rev. Civ. Stat. art. 8280-137, § 28 (Vernon's 1962), *as amended*, (Vernon's Supp. 1974).

[243] Tex. 52d Leg., R.S., ch. 227.

[244] Va. Code Ann. §§ 45.1-128 to 45.1-131, 45.1-136 to 45.1-144 (1974).

[245] W.Va. Code Ann. §§ 22-7-1 to 22-7-12, 22-4-1a (1973).

[246] Ind. Ann. Stat. §§ 13-4-4-3, 13-4-4-7 (1973).

[247] Kan. Stat. Ann. §§ 19-2504 to 19-2506 (1974).

[248] Tex. Rev. Civ. Stat. art. 8280-137, § 28 (Vernon's 1961), *as amended*, (Vernon's Supp. 1974); Tex. 52d. Leg., R.S. ch. 227.

[249] Tex. Rev. Civ. Stat. art. 6005 (Vernon's 1962), *as amended*, (Vernon's Supp. 1974).

[250] Ind. Ann. Stat. § 13-4-8-1 (1973).

[251] Va. Code Ann. §§ 45.1-144, 45.1-142 (1974).

[252] W.Va. Code Ann. § 22-7-11(b) (1973).

[253] Va. Code Ann. § 45.1-139 (1974).

[254] W.Va. Code Ann. § 22-7-11 (1973).

[255] W.Va. Code Ann. § 22-7-12 (1973).

[256] Va. Code Ann. § 45.1-143 (1974).

[257] Tex. Water Code Ann. §§ 22.001-22.104 (Vernon's 1972).

[258] Kan. Stat. Ann. §§ 55-1003 to 55-1007 (1964).

[259] Va. Code Ann. §§ 45.1-221 to 45.1-225 (1974).

[260] Tex. Water Code Ann. § 22.101 (1972).

[261] Kan. Stat. Ann. § 55-1003 to 55-1007 (1964).

[262] Va. Code Ann. § 45.1-224 (1974).

[263] Kan. Stat. Ann. § 55-1004, 55-1005 (1964).

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SILVICULTURE

Over one-third of the gross area of the United States is covered with forests, of which over two-thirds are classified commercial forests, almost twenty percent of which are owned by the People of the United States and administered by various government agencies. Well-managed forests make little contribution to surface and ground water contamination. Incident rainfall is deprived of most of its erosive power by the tree cover and rates of infiltration through ground cover and into subsurface soils are often high enough that intense rainfall can be accommodated without runoff. Productivity can be maintained over a long period of time with some cooperation from human beings. Silviculture is a continuous management process that begins when matured timber is harvested and the site is prepared for a new crop of trees. It includes a relatively long period of growth which contributes little to groundwater and surface water contamination and a relatively short period of harvest and reforestation which can become a significant nonpoint source of water pollution. Nature, as well as man, disturbs forests and modifies otherwise dynamically stable forest ecosystems. Disease, insects, windstorms, droughts and fires can so disturb the dynamic equilibrium of a forest ecosystem that the forest becomes a significant nonpoint source of water pollution in a local area. Silviculture is generally concerned with timber production and the maintenance of forest ecosystems in a state of sustained yield and economic productivity. Silvicultural activities include timber harvesting, reforestation, promotion of tree growth, prevention of disease, fire fighting and fire prevention. Silviculture has been defined as the theory and practice of controlling forests, the establishment of forests, their composition and growth.

Since silviculture is a well-established academic discipline and a substantial body of scientific literature has grown up over the years in this field, it is possible to seriously consider legal regulation of silviculture by means of single purpose legislation such as the Federal Multiple Use Sustained Yield Act and a number of state forest practice acts such as those in Oregon and Massachusetts. Many forest practices are potential contributors to contamination of surface and ground waters, but such forest practices are susceptible to regulation by legal means within the limits of the general police power authority granted to many municipal subdivisions.

The most dramatic disturbance of forest ecosystems by man occurs in harvesting. The harvesting methods generally recognized by the forestry professionals in the United States are clearcut, seed tree, shelter wood, and selection systems. Harvesting in forest ecosystems often produces dramatic short term degradation of water quality primarily as a result of sedimentation following erosion. Clearcutting, or any other method which removes substantially all the trees in a watershed area is likely to have an immediate short term negative effect on water quality.

Legal regulation of forest harvesting practices requires control of what have been generally considered private actions on private property. The success of the Oregon Forest Practices Act achieving responsible timber harvesting practices is largely due to significant cooperation among elected officials, administrative officers, professional foresters, the forest and timber industry, and the general public.

There has been some suggestion that certain harvest practices such as clearcutting be prohibited by federal law, since every forest is a watershed of some sort and clearcutting will to some extent, for some period of time, result in some degradation of water quality. Unfortunately, clearcutting is particularly adapted to subclimax species that do not reproduce well under competitive conditions and clearcutting is also the method best adapted to assure prompt establishment of genetically improved strains of certain species through artificial reforestation. According to E.P.A. studies, the principal species harvested by clearcutting are Short Leaf Pine and Loblolly Pine in the South; Red Pine and Jack Pine in the Lake States; Red Spruce, White Spruce and Balsam Fir in the Northeast; Lodgepole Pine in the Rocky Mountains; and Douglass Fir in the Pacific Northwest.

Another aspect of the harvesting operation which often involves extensive damage to watersheds and can lead to substantial contamination of surface waters is "yarding." After trees are felled in a logging operation, they must be collected in a yarding area where they can be loaded for transportation. In a few cases in New England and the West, logs can be rafted from yarding areas to the mill by means of streams or rivers, but in most cases the logs must be tranported to the mills by truck over permanent roads and they must be brought to the permanent roads from the site of harvest by skidding, yarding, or snaking operations, all of which can significantly accelerate erosion and lead to sedimentation following runoff. The method of transporting logs has been dictated primarily by economic considerations over the years, and insisting on balloon, skyline cable, and helicopter transport methods imposes substantial economic penalties which must be considered in developing legal controls to prevent water pollution from such activities. Although natural regeneration can establish productive stands of trees in many forest ecosystems, it can be encouraged by forest practices which provide favorable conditions for natural germination and growth of desired seedlings. The harvest method selected is often an important factor in establishing the required conditions.

The seed tree method removes all trees from an area with the exception of a few of the most desirable trees that are left to produce seed and restock the cut-over area. The seed tree method is suitable for propagation of selected pine species. The shelter wood system, which involves gradual removal of an entire stand by means of partial cuttings, permits establishment of a new crop before the final harvest. This method is well adapted to regeneration of Appalachian mixed hardwoods. The selection system is significant only where it is desirable to maintain an all aged forest by removing the oldest or largest trees at periodic intervals of five to twenty years. The selection system is well adapted to propagation of species such as Engelann Spruce and Alpine Fir in the Rocky Mountains and Ponderosa Pine in the West. Clearcutting is suitable for establishment of uniform stands of intolerant species that do not reproduce readily under competition from other trees such as Southern Pines, Douglas Fir in the Pacific Northwest and the Western White Pine in northern Idaho.

Forest wild fires have historically played an important role in natural regeneration and maintenance of preferred tree species.

In recent years, however, the use of prescribed fires has become a scientifically accepted forest practice. Prescribed burning is extensively employed in some areas to reduce the potential for wild fires by systematically preventing the surface build-up of fuel resulting from accumulating slash and other forest debris. Traditionally surface vegetation has been removed by controlled burning to permit direct contact of seed from intolerant tree species with mineral soils.

A number of forest practices are employed primarily during the forest growth between harvests. Pesticides are used to control insects, weed trees, plant diseases and rodents, and chemical fertilizers have been increasingly applied to improve growth increments. The use of fire retardants to control and manage fire has become an essential practice in silviculture.

Since sediment is the principal contaminant which is attributed to silviculture, legal control of water pollution from silviculture as a nonpoint source depends primarily on controlling the runoff from managed forests, and limiting the sediment carried by that runoff. Thermal pollution of streams and surface waters can result from removal of tree cover and may have serious effects on cold water streams from the point of view of fish and wildlife management. Runoff from forested watersheds often contains organic matter of vegetative and animal origin which can markedly affect chemical biological equilibrium in aquatic ecosystems. Runoff also serves as a transport mechanism by means of which pesticides used in silviculture can be transported to the surface waters and together with fertilizers and fire retardants can be responsible for contributing substantial nutrient loads of nitrogen and phosphorus to surface waters. Bacterial and viral pathogens can also be carried by runoff to surface waters. Since infiltration rates in many forests are high, dissolved contaminants such as pesticides, nutrients, and organic matter including pathogenic material, can enter groundwater systems and often affect the quality of water supply in areas far removed from the site of silviculture activity.

FOREST MANAGEMENT

The surveys have indicated that most statutes use broad language which often characterizes grants of authority to the agencies responsible for administering forest management and forest practices acts. Granting of the power to "manage" a forest or to set standards regulating "forest practices" or to "protect," "preserve," or "conserve" forest resources contemplates a broad range of governmental regulation. Often such terms are not clearly defined, or limited in enabling legislation allowing flexible interpretation by the administrative agency with specific limitations to be imposed by the courts or on later legislative review.

Three of the searched states, Idaho,[1] Oregon,[2] and Washington,[3] have Forest Practice Acts, and the administrative agencies designated in those acts -- the Idaho Board of Land Commissioners, the Oregon Board of Forestry and the Washington Forest Practices Board -- may set minimum standards for forest practices. These Boards are authorized to promulgate rules and regulations necessary to carry out the purposes of the acts. Protection of soil and water resources is an express purpose of the legislation in each of those states. Although the power to establish forest practice standards is a broad delegation of authority, the legislature of each of these states did provide certain guidelines such as defining the type of forest practice to be regulated.

The Washington Act indicates that among the practices to be regulated, so as to maintain the forests and water quality, are: timber harvesting; road construction and maintenance in or near forests; reforestation or restoration; the use of chemicals and fertilizers; and the disposal of slash. Washington adds to the list precommercial thinning, salvage of trees and brush control.

Administration of the acts is somewhat different in each of the three states. Oregon divides the state into regions. A committee is appointed for each region to recommend rules appropriate to the forest conditions in that region to the Board which is to develop and enforce regional rules. The State Forester who under §526.031 of the Oregon Revised Statutes, is the chief executive officer of the Department of Forestry, is responsible for enforcement of forest laws, rules and regulations. The Forester or his assistants are given immediate supervision of forests and forestry practices. Certain forestry practices may be designated by the Board as requiring forester notification prior to commencement.

In Idaho, the State is divided into two forest regions. Enforcement powers are divided between the Board of Land

Commissioners and the Department of Land which is directed to administer and enforce the Act and promulgate rules in conformity with it, while the Board has certain administrative remedies within the realm of its authority. Operators are required to notify the Department before commencing forest practices. However, the Act contains a provision exempting from the Act certain forest practices conducted in accordance with a plan approved by the Board of Supervisors of a Soil Conservation District.

An even greater division of authority exists in Washington, where the Forest Practice Act distributes administrative and enforcement duties among the Forest Practices Board, the Department of Resources, the Department of Ecology and the counties. The Forest Practices Board sets forest practice standards which, however, must comply with the water quality standards promulgated by the Department of Ecology. The Department of Natural Resources is responsible for administering funds, although the Board hires its own staff. The Natural Resources Department also has primary enforcement powers, and may also be required to approve certain forest practices before they can be initiated, if the Board so requires. If the Department of Natural Resources fails to enforce water quality standards or regulations after the Department of Ecology has given notice of a violation, the Department of Ecology may act to enforce them. Finally, the counties may notify the Department of Natural Resources of their objections to any proposed forest practice within their jurisdiction. The county is given limited authority under the Act to regulate planning and zoning on land platted before 1960 and to restrict conversion of forest land to other uses. If a practice falls within this local authority, the Department must disapprove the practice upon demand by the county. The county also may bring actions for injunctive and declatory relief against violations of regulations or final orders but only upon notice to the Department of Natural Resources and the Department of

Ecology of the violation and after both Departments have failed to act.

Broad enabling language, modified by legislative guidelines together with division of power between state and county authorities is also characteristic of the Public Forests chapter of the Wisconsin Code.[4] Here the Department of Natural Resources is required to execute all matters pertaining to forestry within the jurisdiction of the State, direct the management of forests and advance the cause of forestry. The forests are to be managed in such a way that their primary uses constitute silviculture, growing of continuous forest crops and stabilization of stream flow, and the Department of Natural Resources is authorized to set an allowable timber cut limited to designated trees, and, in an effort to curb soil erosion, distribute planting stock on State lands. Counties may act to provide watershed protection and stabilization of stream flow in county forests. A county board may promulgate and enforce regulations for the use of forests by the public. Counties may also engage in silviculture, forest management, and sale of timber. The counties, like the Department may prepare a plan for allowable timber harvests and land use. As in the Forest Practice Acts, county jursidiction in Wisconsin is limited by county boundaries. Unlike the prior acts, this law also places jurisdictional limits on the State. The Department of Natural Resources may manage and prescribe practices only for lands designated as State forests. The Forest Practices Act authorized Boards to prescribe forest practices for all forest lands of the State -- public and private.

The Massachusetts Forestry Chapter[5] contains similar provisions. The State Forester is directed to manage, develop, and reforest the State forests. In doing so, attention is to be paid to protection of State water supplies. With the approval of the Department of Conservation, the Forester may promulgate reasonable regulations necessary to the care and management of the State forests and water supply. Unlike the Wisconsin statute, this section of the Massachusetts Code[6] also extends certain authority over private forest lands and the Director of the Division of Forestry of the Department of Conservation is authorized to promote the perpetuation, extension, and proper management of both the public and private forest lands in Massachusetts. The State Forester may demonstrate proper silviculture practices to the interested public and may distribute planting stock, with some authority to decide where that stock is to be planted. In regard to demonstrations and distributions, the State Forester is expressly authorized to cooperate with and accept funds from the Federal Government.

Like the Massachusetts Division of Forestry, the Office of Extension Forestry of the Kansas State University of Agriculture and Applied Sciences performs advisory and educational functions with respect to private forest owners.[7] The Office is directed to promote the development and use of forest resources and the control of soil erosion. Technical assistance may be provided to interested persons. The Office also performs functions with regard to state land. Forestation and reforestation projects conducted by the State are to be supervised by the Office. Although the duties of the Office are largely advisory rather than regulatory, it may promulgate rules and regulations necessary to the administration of the Act.

The New Jersey environmental protection legislation enacted in 1970[8] uses language similar to the grants of authority in the Massachusetts and Kansas statutes. Where the Director of the Massachusetts Division of Forestry is directed to promote the perpetuation, extension and proper management of forest lands, the Division of Parks, Forestry and Recreation in New Jersey is required to protect and manage the State forests and promote the use of good forestry management principles. In addition to the broad substantive powers, the administrative power to hire personnel and obtain Federal funding is also granted the Department. A Parks, Forestry and Recreation Council is established to advise and assist in administration of the Act.[9]

Under a separate section of the Code, the New Jersey Division of Parks, Forestry and Recreation is given regulatory power of the State "forest park reserves" and is responsible for the care, management and regulation of the reserves.[10] The Division must administer the reserves for general conservation. More specifically, the Division is directed to reforest cut-over and denuded lands and place special emphasis on conserving forest tracts around headwaters and on watersheds of the State. (Note that in the Wisconsin Public Forests chapter, supra, responsibility for protection of the headwaters and watersheds was given the counties.)

Among the specific duties imposed on the Minnesota Commissioner of Conservation is also that of conserving the forests around the headwaters of streams and in the watersheds of the State.[11] The grant of power to this agency, as with the others discussed, begins with a broad delegation -- to manage and control all State forest lands. The statute then enumerates certain powers granted to implement the duty to manage and control. The Commissioner is required to ascertain the best methods of reforestation, to distribute planting stock, and conserve forests and may promulgate rules and regulations for the care and management of the State forest lands. As in several of the other forest management statutes, no control over private forest lands is given. A division of authority between the Commissioner and the county is also expressly provided. Day to day care of the forest lands within their jurisdiction and county responsibility includes the removal of trees, brush and debris. To cover the cost of meeting their responsibilities the counties are authorized to issue bonds. In addition, 50% of the gross receipts of the sale of state timber located in a county is appropriated to that county.[12]

The Michigan legislature has enacted three laws giving forest management authority to various agencies or officials. In each case a jurisdictional limitation is involved. The Forest Reserve Act[13] creates a State forest reserve which is to be maintained and controlled by the State Forestry Commission which must provide for good forestry practices on the reserve, and may require that sound practices also be used by private individuals granted the right to harvest trees on the reserve.

A parallel statute authorizes the creation of municipal forestry commissions to supervise and manage municipal forest lands.[14] The Commissions may promulgate reasonable rules and regulations regarding these lands and Municipal-State cooperation is required. The municipal commissions must cooperate with the Department of Conservation with respect to the establishment and maintenance of public forests. A restrictive funding provision in this statute raises some questions as to the effectiveness of municipal commissions. Under this statute, no municipal legislative body may appropriate more than $5000 for the Commission without a 3/5 vote of the electorate.

The third Michigan statute gives the Department of Natural Resources the power to develop forest practice guidelines and procedures to be followed along highways which have been designated "natural beauty roads."[15] Among the practices to be regulated are cutting, spraying, dusting, salting, and mowing -- all potential causes of water pollution.

Indiana also has a natural beauty roads law which grants similar powers to the county boards of commissioners.[16]

Virginia, like Michigan, has three related statutes granting three different officers power to manage forest land within limited jurisdictions.[17] There are several forest reserves in Virginia, the care, management, use and preservation of which are the responsibility of the Director of Conservation and the Board of Conservation and Development. The section of the Code[18] granting authority to the Commissioner and the Board instructs them in particular to conserve the forests around headwaters and in the watersheds of all watercourses of the State, as statutes in Wisconsin, New Jersey, and Minnesota. Forest wardens have direct enforcement powers. Funding management and protection efforts are to come in part from the sale of timber from State forests.

Two other statutes give the Commission of Game and Inland Fisheries[19] and the Director of Engineering and Building[20] overall management authority over forests on lands within their jurisdiction, and in addition, they are required to see that the timber on the lands is harvested in accordance with the best timber management practices.

State forest management statutes often contain no penalty or enforcement provisions, merely directing state or local agencies to manage forests within their jurisdiction in accordance with sound forestry practices. They are not penal statutes, nor do they generally prohibit or require public action.

The Forestry Management Section of New Jersey's environmental protection law gives no enforcement power to the Division administering them.[21] However, another section of the New Jersey Code dealing with the Department of Environmental Protection authorizes the Department to enforce forestry laws, rules and regulations and to seek and obtain injunctive relief when necessary.[22]

Statutes which contain prohibitions or regulate practices are more apt to include remedies. The most effective type of remedial measure is one which allows immediate action against violators. Fines and imprisonment do not necessarily halt improper silvicultural activities which degrade water quality since there is often a significant time lapse between the commencement of a violation and its cessation during which, serious and often permanent, irreparable damage is done to surface waters. Equitable relief, especially injunction, whether temporary or permanent, mandatory or prohibitory, is the key to effective protection of water quality from degradation by nonpoint sources of water pollution.

The New Jersey Department of Environmental Protection may obtain an injunction against damaging forest practices.[23] The Washington Forest Practices Act[24] gives both the Department of Natural Resources and the Department of Ecology the power to seek and obtain injunctive relief against forest practices. The Department of Ecology may act to enjoin only forest practices pertaining to water quality; while the Department of Natural Resources may enjoin any injurious forest practice. One limitation on the powers of both Departments is that these injunctions may not run longer than one year. Another provision of the Act authorizes counties to seek and obtain injunctive relief against forest practices within their jurisdiction if the Departments fail to. A time limit is not specified with regard to injunctions obtained as a result of county enforcement action.

Of the two natural beauty roads statutes discussed in this section, only Indiana's provides for enforcement.[25] A County Attorney, acting for the Board of Commissioners, may sue to enjoin damage to natural beauty roads. The Michigan counterpart contains no enforcement or penalty provision.

The three above statutes are the only ones in the forest management category which specifically provide for injunctive relief. Several others do allow the executive agency to take "other" action, and some administrative remedies are as undefined in the general grants of power given the agency. The Minnesota

State Forests Statute authorizes the Commissioner of Conservation to execute all rules and regulations pertaining to forestry and to prosecute violators.[26] The Massachusetts Forestry Chapter also grants the power to prosecute violators of forestry rules and regulations to the Department of Conservation, and in addition gives officers of that Department the same enforcement powers as police officers, except the power to serve process.[27]

Stop work orders and orders to cease violations may be issued under the Idaho, Oregon and Washington Forest Practice Acts.[28] Violators may be ordered to repair damages caused by their actions. If the violator fails to make repairs, each of these acts authorizes the administrative agency to proceed with repairs and either sue for expenses (Washington) or impose a lien on the land (Idaho) or on the land and personalty of the violator (Oregon) in the amount of the expenses. Persons aggrieved by orders of the Oregon Forester or Washington Department of Natural Resources may appeal. In Oregon, appeal is made to the Board of Forestry with judicial review by the circuit court within 30 days of the Board's decision. In Washington, a civil penalty of up to $1000 per day may be imposed by the Department, for violations of the Act or regulations, and appeals from this assessment are taken to the Forest Practices Appeals Board.

All three of the above Forest Practices Acts provide for criminal sanctions as well as civil remedies. In Oregon, failure to notify the Forester of intent to commence forestry activities (i.e., growing, cutting, processing of trees), or violation of any rule, regulation or standard promulgated under the Act is punishable upon conviction as misdemeanors.[29] Each day of operation without notification is a separate offense.

In Washington, violations of the Acts or regulations are punishable by a civil penalty, however, willful violations are punished criminally being classified as gross misdemeanors punishable upon conviction by a fine of $100 to $1000 per day or up to one year imprisonment for each day's violation.

The Idaho Act, like Oregon's, classifies violations of the Act or rules as misdemeanors punishable upon convicion by fines, but the Act fails to specify minimum or maximum fines.

The Virginia Forest Resources Statute[30] punishes violations of rules or regulations pertaining to State reservations or parks, upon conviction by a fine of between $5 and $50 per offense. If the fine is not paid, the Act authorizes imprisonment at a rate of one day for every two dollars not paid.

The Wisconsin Public Forest chapter[31] also classifies violations as misdemeanors. In this case, the resale of forestry stock received from the Department of Natural Resources for forestry purposes is a misdemeanor. Violators may be punished by fines of between $50 to $100. The misuse of planting stock (i.e., using it for other than windbreaks, control of soil erosion, or game food and cover) is not a misdemeanor, but is punishable by a fine of up to $1000. Counties which fail to comply with the Act may be ordered to do so by the Department. A court may enforce this order and violation will subject county officials to civil contempt proceedings.

New Jersey punishes persons setting fires in a forest park reserve by a penalty of $50-$200, assessed summarily and enforced in a civil action with civil standards of proof applying.[32] In mitigating circumstances, the violator may be allowed to pay the price of the damage caused by the fire if it is less than the penalty.

HARVESTING

The legislation discussed in this section affects the cutting, harvesting or transporting of timber. Many of these laws are enabling statutes authorizing an agency or political body to regulate these activities. Others are simply prohibitions, enforceable by local law enforcement officials or forest wardens, and will be considered under enforcement.

Among the enabling statutes, several were enacted primarily as water resource protection or conservation measures. Others have as their primary goal the promotion of forest growth or the prevention of forest fires. Whether disposal of cutting debris is ordered as a fire prevention measure or to prevent water pollution, the result is the same. The water pollution potential of the silvicultural activity is prevented. The prevention of forest fires is also a means of pollution control, by minimizing soil erosion, as is the promotion of forest growth which similarly retards soil erosion and reduces water pollution.

Two of the harvesting statutes require that permits or licenses be obtained prior to cutting, and also contain provisions calling for the conservation of water resources. The Massachusetts Forest Cutting Practices statute [33] requires commercial harvesters to be licensed, and creates a State Forestry Committee to promulgate a set of approved forest cutting practices. A plan of operations using only approved practices must be prepared jointly by the operator and the Director of the Massachusetts Division of Forestry before any landowner may harvest trees.

In Indiana, the Department of Conservation issues permits for the cutting of timber from state forests, and before issuing any permit must consider the need for the timber in contrast with the effect of its harvest upon the conservation of timber, water, and soil resources, and wildlife.[34] This statute contains a rather unique permit provision, which allows the Department, by means of conditions imposed on applicants for permits, to assume certain powers not expressly granted by the statutes. Permit terms may regulate practices, removal of timber and disposal of slash and require adequate fire prevention practices. The Department may also include conditions providing for summary revocation of the permit by the Department for violations of permit provisions.

Counties in Indiana have the duty and authority to regulate cutting for county-owned public forests, which are to be protected from fire and grazing and cut in accordance with approved forestry measures. To fund these maintenance efforts, counties may levy taxes and use revenue from the sale of timber.[35] In addition, part of the funds collected as license or cutting fees by the Department of Conservation is allocated to the county in which the state forest is located.

The Hawaiian legislature has enacted a comprehensive land use statute which allows the Department of Land and Natural Resources to prohibit unlimited cutting of trees in areas designated as forest and water reserve zones in order to protect the water and forest resources of the State.[36] The Department may designate the zones, promulgate land use regulations for them, hold hearings, and hire the personnel necessary to enforce the statute.

In Minnesota, one statute authorizes the Commissioner of Natural Resources to sell any state lands, except those bordering meandering lakes, to be used to grow continuous forest crops in accordance with sustained yield practices.[37] The timber on lands which do border meandering lakes may be sold for cutting and removal, in accordance with sustained yield practices. Another statute, the Minnesota Forestry Act,[38] requires that persons proposing to cut timber from land in or adjoining state forests must post notice at the site and give notice to the Commissioner of Natural Resources. Any person proposing to cut such timber must agree to dispose of cuttings as directed by the Director of the Division of Forestry, who is also authorized to permit the removal of dead trees and refuse from state forests in order to improve the forests and protect them from fire. Again, debris must be properly disposed. The Department is authorized to issue rules and regulations to enforce these provisions.

The Michigan Slash Disposal Law,[39] although primarily a fire prevention measure, restricts post cutting practices. The Director of Conservation or his authorized representative must notify persons responsible for cutting forest growth along or within a public highway who have not properly disposed of the debris. If the party fails to comply with this notification, the Department may pay for the removal of debris and present a statement of that amount to the violator for payment.

A New Jersey law handles accumulation of debris somewhat differently, declaring it a public nuisance to allow accumulations which might cause forest fires.[40] The Department of Environmental Protection now has the enforcement authority, formerly given the Board of Conservation and Development.

A Massachusetts log transport statute[41] requires persons unloading lumber from a vessel to obtain a permit from the harbor master who is generally appointed by a city mayor or town selectman. The master determines where lumber may be hefted and unloaded. Although the statute is primarily aimed at preventing obstructions to navigation, it can also serve to abate some of the water pollution caused by the timber industry.

Penalties

A violation of a law or regulation governing the harvesting, cutting or transporting of timber may be prosecuted civilly, administratively or criminally. Only three of the harvesting statutes provide for immediate summary equitable action against violators. The Virginia Log Transport Statute[42] authorized injunctive relief against the dumping of timber, trees or logs into any state waters, and in particular the Big Sandy River, so as to obstruct it. The county attorney or an injured party may file a bill in equity with the Circuit Court which may issue an injunction to enjoin violations.

The New Jersey Department of Environmental Protection may bring suits for injunctive relief against violations of the laws, rules and regulations dealing with environmental protection, which include provisions of the code prohibiting accumulation of brush or debris from felled trees.[43]

The Massachusetts Forest Cutting Practices Act empowers the Director of the Division of Forestry to seek and obtain injunctive relief against persons harvesting timber in violation of the licensing requirements.[44]

Neither the New Jersey nor the Massachusetts statutes expressly authorize citizen suits for injunctive relief. However, both of these acts plus a West Virginia law pertaining to obstructions of rivers statute[45] and the Michigan Slash Disposal Law[46] do allow citizens to maintain actions for damages. The West Virginia statute also authorizes private citizens to bring nuisance abatement actions in the county court.

Enforcement of the Hawaii Forest and Water Reserve Zone statute and of zoning regulations is by "court order at the suit of the Department," or an affected landowner.[47] No actions for damages are specifically provided for in that statute.

The Michigan Department of Conservation under the Slash Disposal Law, and the Minnesota Division of Forestry are authorized to direct persons responsible for debris accumulations to dispose of the debris properly.[48] If the responsible persons fail to comply with the agency notice, the agency may pay for removal. In Michigan, the responsible party is billed, and, if necessary, sued for expenses.[49] In Minnesota, the expenses incurred by the Division become a lien on the land which may be foreclosed if not paid.[50]

New Jersey also authorizes the Division of Parks, Forestry and Recreation, in the Forest Fire Service Statute, to order the removal of any menace represented by litter from felled trees.[51] Rather than providing for a lien on the operator's land or for a suit to recover damages, the Act provides for a penalty intended to cover the Division's costs.

Revocation of licenses or permits is an administrative remedy found in two of the three licensing statutes. The Indiana Removal of Timber provisions authorize the Department of Natural Resources to include a provision in timber cutting permits, which allows for revocation and indicates the grounds for such disciplinary action.[52]

The Massachusetts Forest Cutting Practices Act requires the licensing of commercial timber harvesters.[53] The Director of the Division of Forestry has the power under that act to revoke a license for violations of the statute's provisions (which primarily prescribe cutting practices).

The log transport statute in Massachusetts requires that a permit be obtained before lumber may be removed from a vessel, but there is no provision authorizing revocation of these permits. Instead, violations are punishable as crimes, and the penalty is a fine.[54]

A number of statutes in the harvesting category punish violations without designating the violation a crime. In Massachusetts, forest wardens may inspect wood and lumber operations to insure proper disposal of slash. Violations are punishable by fines. Hawaii provides fines of up to $500 for violations of the zoning regulations governing land use in forest and water reserve zones. The New Jersey Division of Parks, Forestry, and Recreation is authorized to impose fines for willful violations of the state, limiting accumulation of litter from felled trees. Non-willful violations may also be punished by fines. This particular piece of legislation provides for imprisonment upon failure to pay these penalties with release conditioned upon payment of the fine or after a maximum prison term of 90 days or sooner release by the court. New Jersey penalties are summarily imposed and recovered through civil proceeding where civil standards of proof apply.

Five of the fourteen states studied designated violations of harvesting statutes as misdemeanors, which are punishable by fine, imprisonment or both.[55] The Massachusetts Log Transport statute[56] establishes two separate misdemeanors; both punishable by a fine of between $20-$100, and failure to obtain the harbormaster's approval of the unloading site before unloading is punishable by a maximum fine of $50.

The Massachusetts Forest Cutting Practices Act[57] and the Minnesota Forestry Act[58] impose penalties for failure to post notice of cutting, and in Massachusetts this misdemeanor is punishable by a fine of no more than $25 per acre, while in Minnesota the same misdemeanor is punishable for conviction by either a fine of $25 or up to 20 days in jail. Both statutes also declare other activities to be misdemeanors. The failure to follow the Massachusetts Division of Forestry's plan of operation is punishable by a fine of up to $25 per acre, while commercial harvesting without a license subjects the violator to a maximum fine of $25. The Massachusetts Superior Court has jurisdiction in equity to enforce these penalties. The Minnesota code punishes the improper disposal of cutting with fines of between $25-$100 or up to 90 days imprisonment.

Like the Massachusetts log transport statute, a West Virginia law[59] prohibits obstruction to passage on a navigable or floatable stream or river. Where Massachusetts punishes this misdemeanor by a fine of $20-$100, the West Virginia law provides a fine of up to $1000 or imprisonment of up to one year. Virginia, too, punishes dumping of lumber into state waters, with maximum penalties of $100, or 30 days.[60] Persons causing the obstruction of rivers, creeks, streams, or swamps by dumping logs or felling timber into them may be fined up to $1000 per day or required to serve 12 months in jail. If the obstructed river is the Big Sandy, the punishment provided for is a fine of $100-$500 or 12 months imprisonment. Only one of the statutes examined allows punishment by both fine and imprisonment. In Michigan, violators of the

Slash Disposal Law upon conviction of a misdemeanor may be fined up to $100 and/or imprisonment for 90 days.[61]

INCENTIVES

Water pollution may be abated not only by directly prohibiting the actions which can cause pollution, but also by encouraging activities which prevent pollution. The principal economic incentives used to encourage good forestry practices are tax reductions and subsidies. Subsidies may take the form of a cash payment to cover the costs of certain sound forest practices, or it may be a valuable commodity such as planting stock.

Massachusetts, Idaho, Indiana, Michigan, Wisconsin, Minnesota, and Hawaii provide tax incentives to encourage landowners to retain and improve their forests and promote good forest management practices. An amendment to the Massachusetts constitution authorizes the general court to prescribe for wild and forest lands, such tax measures as will develop and conserve forest resources.[62] The other seven states provide specific tax reductions or exemptions for forest land used solely and primarily for raising forest crops and meeting other requirements.

Idaho, Wisconsin, and Minnesota offer preferential tax treatment to owners of land which has been designated as "sustained-yield" forest land. Wisconsin authorizes its Department of Natural Resources to consider applications for designation of land as "sustained-yield forest lands."[63] Land so designated is subject to a forest management plan approved by the Department and requiring some forestry practices. Deviation from the plan or unauthorized or excessive cutting is prohibited and penalized; however, land so classified receives a reduction in property taxes. Idaho designates certain districts in the state as "cooperative sustained yield districts." Any land lying within these districts is subject to certain prescribed forestry practices, such as restrictions on timber cutting. The State

Forester enforces these restrictions. The Idaho statute[64] has as its express purpose "the protection of the state's water resources and the prevention of soil erosion." Instead of a tax reduction as in Wisconsin, the Idaho statute provides a tax credit for owners of land located in the districts. The County assessor is instructed to give a tax credit in an amount equal to the assessed value of the timber left uncut.

The Minnesota Tree Growth Tax law[65] authorizes any owner of more than five acres to apply for a special designation in which the owner assumes the obligation of following sustained yield practices in return for lower tax rates as determined by the county board.

The State of Wisconsin offers two other classifications in addition to "sustained-yield" which can qualify for tax relief. An owner of no less than 40 acres within the boundaries of a forest protection district may apply for a "Forest Crop Lands" designation. To qualify, the land must be more useful for growing timber than for any other purposes, designation of his land as forest crop land results in a restriction on the amount of timber that may be cut and requires the owner to practice forestry thereon and adhere to sound forestry practices. In return for the designation, the landowner signs a contract with the state which runs with the land for 25 to 50 years, but is terminable upon mutual consent or violation of any of the provisions by the owner. In consideration of the owner's adherence to the conditions of the contract, the State provides for a reduction in property tax rate as determined by the Department of Revenue. A special designation may be given land which would otherwise qualify as forest crop land, but which lies outside a forest protection district. Such land will be taxed at a reduced rate. The Wisconsin Woodland Tax Law[66] allows an owner of less than 40 acres to enter into a 10 year contract with the State under which the owner agrees to practice forestry on the land in accordance with sound forestry practices, promote forest growth and prohibit grazing or burning.[67]

Indiana provides two different forest land tax designations for 10 acres or less.[68] "Forest plantation" refers to land which has been cleared and planted with trees. "Native forest lands" refers to land which has never been plowed or cultivated and on which at least 1000 native timber products are maintained. The Department of Natural Resources may prescribe minimum standards of forest management to be followed by owners who apply for and receive classification. To qualify for either classification the land must be ten acres or more of land devoted primarily to forest growth and containing no buildings or dwellings. Owners of classified land are then assessed a nominal property tax; however, when the land is withdrawn, the owners must pay a retroactive tax plus interest or an increment tax whichever is less.

North Dakota provides a special tax rate to be determined by the county for ten acres or more of sufficient density of "native woodlands," i.e., land which normally supports a growth of natural forest cover.[69] The State Forester considers and determines the acceptability of all applications.

Michigan uses the designation "commercial forest" to indicate forest land which may receive preferential tax treatment, if it is used and developed solely to produce a "thrifty forest carrying a suitable but not excessive number of merchantable trees.[70] Use of such land for industrial, recreational or other commercial purposes or the cutting of any trees without a permit is prohibited. The property is exempt from general property tax and is assessed at a lower special tax rate.

The Hawaiian Act authorizes the Board of Land and Natural Resources to approve land for classification as tree farms.[71]

The tract must be thirty acres or more in size, suitable for raising trees of a commercial quality, in a quantity sufficient to establish a business in the sale thereof. The tract is required to be managed according to good forestry management practices and must be unsuitable for some higher or better use.

Minnesota, in addition to its Tree Growth Tax, offers bounties or rewards for timber growth.[72] Every person who plants or maintains one acre or more of forest trees in a density of 600 trees per acre may receive from the county $2.50 per acre for up to six successive years. The act indirectly promotes soil conservation and the prevention of soil erosion. However, since the maximum possible subsidy covers only a period of 6 years, the effectiveness of such an incentive is questionable.

Virginia offers a more realistic subsidy.[73] Landowners wishing to reforest their land may be paid up to 75% of the cost of reforesting, or $45 per acre, whichever is less. This is administered by the State Forester who may hire the personnel necessary to carry out his functions. Funds to administer the act come from a special "reforestation of timberlands state fund." The effectiveness of this particular act is questionable considering an addendum to the funding provision which indicates that the act is not in effect during any biennium when the general assembly fails to appropriate a sum equal to or exceeding the estimate of the revenue to be collected for reforestation from the state's forest products tax. This is a tax levied annually on anyone who for sale, profit or commercial use, manufactures chips or severs timber or other forest products. The revenues from this tax are used for reforestation, seedling cultivation, forest fire protection, and education.

A few of the Forest Management/Forest Practices Acts contain provisions authorizing the distribution of planting stock, rather than a subsidy for reforestation. Massachusetts, Wisconsin and Kansas have such provisions in statutes.[74]

Declassification of the land is the principle penalty imposed under all but two of the tax incentive statutes. Under the Minnesota, Hawaii, Michigan, North Dakota, Indiana, and Idaho statutes discussed above, deviation from the sustained yield or approved forest practices required by the act results in the revocation of the classification by the agency responsible for classification and a return to the regular tax rolls. Decisions of the executing agency to revoke or deny classification are appealable in all of the statutes. In Hawaii declassification results specifically from destruction of tree farm property. In addition to having the property returned to regular tax rolls upon declassification the taxpayer is to be assessed taxes retroactively for the period of classification plus be assessed a penalty. Indiana and Idaho, in addition to the administration remedy of declassification, provide fines for certain acts. In Idaho,[75] any person violating the provision of the statute prohibiting excessive cutting of certain pine trees will be fined $50 per acre maximum. Under the Indiana law, any person making a false statement on an application for classification may be charged with a misdemeanor and, upon conviction, will be fined a maximum of $250 and/or 6 months imprisonment.[76]

The two Wisconsin statutes also punish violations with fines and or criminal prosecution. Violations of the requirements for designation as "sustained yield forest land" or any rules or regulations promulgated by the Department of Natural Resources or the Department of Taxation results in a fine of between $10 and $500 per day.[77] Violation of the provision of that act prohibiting excess cutting of timber is punishable at a rate of $40 per thousand board feet of excess timber cutting.[78] Failure to make a report or giving a false report of timber cut as required to maintain a "forest crop lands" designated under Wisc. 77.01 to 77.16 constitutes a misdemeanor punishable by a fine of up to $1000 or up to 1 year imprisonment or both.[79]

Of those statutes surveyed, the Michigan Commercial Forest Reserves statute provides the stiffest penalty for violation of the Act.[80] Violations are felonies punishable upon conviction by a fine of up to $2000 or up to 3 years imprisonment or both. This law also requires that persons wishing to cut trees in a commercial forest obtain a permit. The Department of Natural Resources may revoke cutting permits for fraud or proper cause.

Only one of the tax incentive statutes provides for injunctive relief against unlawful cutting of timber. The Wisconsin sustained-yield forest lands provision authorizes the Department of Natural Resources to obtain a temporary injunction against violators.[81]

None of the cash subsidy provisions provide penalties; however, two of the states authorizing distribution of planting stock provide methods of insuring proper use or punishing improper use of stock. The Massachusetts forestry chapter attempts to prevent misuse or unsound use of the planting stock by authorizing the forester to withhold distribution until the location of planting has been approved.[82]

Wisconsin, on the other hand punishes violators after misuse of the stock occurs.[83] Resale of planting stock is a misdemeanor; violators may be fined between $50-$100. Misuse of planting stock, although not a crime, is punishable by a fine of up to $1000. In Kansas, planting stock is distributed by the State University which seems to have no enforcement powers.[84]

FOOTNOTES

SILVICULTURE

[1] Idaho Code Ann. §§ 38-1301 to 38-1312 (Supp. 1974).

[2] Ore. Rev. Stat. §§ 527.610 to 527.990(1) (1973 Repl. Part).

[3] Wash. Rev. Code Ann. §§ 76.09.010 to 76.09.900 (Supp. 1974).

[4] Wis. Stat. Ann. §§ 28.005 to 28.23 (1973).

[5] Mass. Gen. Laws Ann. ch. 132, § 1 *et seq*. (1974).

[6] Mass Gen. Laws Ann. ch. 132, §§ 1, 6 (1974).

[7] Kan. Stat. Ann. §§ 76-425d, 76-425f, 76-435 (1969).

[8] N.J. Stat. Ann. §§ 13:1B-15.100 to 13:1B-15.104, 13:1B-65 (1969), *as amended*, (Supp. 1974).

[9] N.J. Stat. Ann. §§ 13:1B-15.100 (1969).

[10] N.J. Stat. Ann. §§-13:8-1 to 13:8-16 (1968), *as amended*, (Supp. 1974). [Hereinafter referred to as the New Jersey Forest Reserves Statute.]

[11] Minn. Stat. Ann. §§ 89.01, 89.001 *et seq*. (1964), *as amended*, (Supp. 1973). [Hereinafter referred to as the Minnesota State Forests Chapter.]

[12] Minn. Stat. Ann. § 89.036 (Supp. 1973).

[13] Mich. Comp. Laws Ann. §§ 320.101 to 320.107 (West 1967).

[14] Mich. Comp. Laws Ann. §§ 320.201 to 320.210 (West 1967).

[15] Mich. Comp. Laws Ann. §§ 247.381 to 247.385 (West Supp. 1973).

[16] Ind. Ann. Stat. §§ 19-7-17.5-1 to 19-7-17.5-8 (1974).

[17] Va. Code Ann. § 10-32 *et seq*. (1973). [Hereinafter referred to as the Virginia Forest Resources Statute.]; Va. Code Ann. § 29-23 (1973); Va. Code Ann. § 2.1-106.8 (1973), *as amended*, (Supp. 1974).

[18] Va. Code Ann § 10-32 *et seq*. (1973).

[19] Va. Code Ann. § 29-23 (1973).

[20] Va. Code Ann. § 2.1-106.8 (1973), *as amended*, (Supp. 1974).

[21] N.J. Stat. Ann. § 13:1B-15.101 (1968).

[22] N.J. Stat. Ann. § 13:1D-9(a) (Supp. 1974).

[23] *Id*.

[24] Wash. Rev. Code Ann. § 76.09.140 (1974).

[25] Ind. Ann. Stat. § 19-7-17.5-8 (1974).

[26] Minn. Stat. Ann. § 89.01 (1964).

[27] Mass. Gen. Laws Ann. ch. 132, § 34, ch. 132A, § 7 (1974).

[28] Idaho Code Ann. § 38-1307(3) (Supp. 1974); Ore. Rev. Stat. § 527.680 (1973 Repl. Part): Wash. Rev. Code Ann. § 76.09.080 (1974).

[29] Ore. Rev. Stat. § 527.990 (1973 Repl. Part).

[30] Va. Code Ann. § 10-43 (1973).

[31] Wis. Stat. Ann. § 28.12 (1973).

[32] N.J. Stat. Ann. § 13:8-16 (1968).

[33] Mass. Gen. Laws Ann. ch. 132, §§ 40 to 46 (1974).

[34] Ind. Ann. Stat. §§ 14-5-4-1 to 14-5-4-6 (1973).

[35] Ind. Ann. Stat. §§ 19-7-1-4, 19-7-1-7, 19-7-2-2, 19-7-2-7 (1974).

[36] Hawaii Rev. Stat. § 183-41 (1968), *as amended*, (Supp. 1974).

[37] Minn. Stat. Ann. §§ 92.321, 92.45 (1964), *as amended*, (Supp. 1973).

[38] Minn. Stat. Ann. §§ 88.01 to 88.21, 88.73, 88.75 (1964), *as amended*, (Supp. 1973).

[39] Mich. Comp. Laws Ann. §§ 320.41 to 320.48 (West 1967).

[40] N.J. Stat. Ann. §§ 13:9-23 to 13:9-26, 13:9-36, 13:9-43 (1969), *as amended*, (Supp. 1974).

[41] Mass. Gen. Laws Ann. ch. 102, §§ 17, 19, 22, 28 (1972).

[42] Va. Code Ann. §§ 62.1-194 to 62.1-194.3 (1973), *as amended*, (Supp. 1974).

[43] N.J. Stat. Ann. §§ 13:1D-9 (Supp. 1974).

[44] Mass. Gen. Laws Ann. ch. 132, § 46 (1974).

[45] W.Va. Code Ann. § 61-3-47 (Supp. 1974).

[46] Mich. Comp. Laws Ann. § 320.46 (West 1967).

[47] Hawaii Rev. Stat. § 183-41 (1968), *as amended*, (Supp. 1974).

[48] Mich. Comp. Laws Ann. § 320.42 (West 1967); Minn. Stat. Ann. § 88.14 (Supp. 1974).

[49] Mich. Comp. Laws Ann. §§ 320.45, 320.46 (West 1967).

[50] Minn. Stat. Ann. § 88.14 (Supp. 1974).

[51] N.J. Stat. Ann. § 13:9-2 (1968).

[52] Ind. Ann. Stat. § 14-5-4-3 (1973).

[53] Mass. Gen. Laws Ann. ch. 132, § 46 (1974).

[54] Mass. Gen. Laws Ann. ch. 102, § 28 (1972).

[55] The Massachusetts log transport provisions, the Massachusetts Forest Cutting Practices Act, the Minnesota Forestry Article, the West Virginia Obstruction of Rivers provisions, and the Michigan Slash Disposal Law.

[56] Mass. Gen. Laws Ann. ch. 102, § 17, 28 (1972).

[57] Mass. Gen. Laws Ann. ch. 132, § 43 (1974).

[58] Minn. Stat. Ann. § 88.75 (1964).

[59] W.Va. Code Ann. § 61-3-47 (Supp. 1974).

[60] Va. Code Ann. §§ 62.1-194, 62.1-194.2, 62.1-194.3 (1973), *as amended*, (Supp. 1974).

[61] Mich. Comp. Laws Ann. § 320.46 (West 1967).

[62] Mass. Const. Amend. art. 41 (1958).

[63] Wis. Stat. Ann. §§ 70-335 (1969), *as amended*, (Supp. 1974).

[64] Idaho Code Ann. §§ 70-335 (1969), *as amended*, (Supp. 1974).

[65] Minn. Stat. Ann. §§ 270.31 to 270.39 (1969), *as amended*, (Supp. 1973).

[66] Wis. Stat. Ann. §§ 77.01 to 77.16 (1957), *as amended*, (Supp. 1974).

[67] Wis. Stat. Ann. § 77.16 (1957), *as amended*, (Supp. 1974).

[68] Ind. Ann. Stat. § 6-8-2-1 to 6-8-2-20 (1972).

[69] N.D. Cent. Code §§ 57-57-01 to 57-57-08 (1972), *as amended*, (Supp. 1973).

[70] Mich. Comp. Laws Ann. §§ 320.301 to 320.314 (West 1967), *as amended*, (West Supp. 1973).

[71] Hawaii Rev. Stat. §§ 186-1 to 186-12 (1968), *as amended*, (Supp. 1974).

[72] Minn. Stat. Ann. §§ 348.01 to 348.05 (1972).

[73] Va. Code Ann. § 10-90.29 (1973), *as amended*, (Supp. 1974).

[74] Mass. Gen. Laws Ann. ch. 132, §§ 6, 9 (1974); Wis. Stat. Ann. § 28.06 (1973); Kan. Stat. Ann. § 76-425d(1) (1969).

[75] Idaho Code Ann. § 38-308 (1961).

[76] Ind. Ann. Stat. § 6-8-2-17 (1972).

[77] Wis. Stat. Ann. § 70.335(18) (1969), *as amended*, (Supp. 1974).

[78] Wis. Stat. Ann. § 70.335(10) (1969), as amended, (Supp. 1974).

[79] Wis. Stat. Ann. §§ 77.06, 77.09 (1957), *as amended*, (Supp. 1974).

[80] Mich. Comp. Laws Ann. § 320.314 (West 1967).

[81] Wis. Stat. Ann. § 70.335(10) (1969), *as amended*, (Supp. 1974).

[82] Mass. Gen. Laws Ann. ch. 132, §§ 6, 9 (1974).

[83] Wis. Stat. Ann. § 28.06 (1973).

[84] Kan. Stat. Ann. § 76-425d(f) (1969).

GENERAL CATEGORY

In this report, those statutes which do not neatly fit into one of the major classifications have been grouped as "General" legislation; however, in each of these cases, the language of the statutes considered is broad enough to cover both point sources and nonpoint sources of water pollution.

These general statutes deal with diverse subjects and for the purpose of this compilation have been grouped into classes under the following designations:

- Authorization of Citizen Suits to Protect the Environment.
- Coastal Zone Protection.
- Critical Areas Protection.
- Financial Incentives (monetary aid and tax concessions).
- Flood Plain Regulations.
- General Health and Welfare Controls.
- General Pollution Controls.
- Planning, Zoning and Other Land Use Regulations.
- Nuisances -- Obstructions.
- Prevention of Loads Spilling on Highway.
- Removal of Ice and Snow: Salting of Roads.
- Soil Erosion and Sedimentation Control.
- Special Pollution Controls.
- Wetlands Protection.

AUTHORIZATION OF CITIZEN SUITS TO PROTECT THE ENVIRONMENT

These statutes confer upon private citizens or groups of private citizens standing to bring suit to protect the environment, and create, in effect, private attorneys general. Water pollutants from identifiable nonpoint sources could be attacked under these statutes, particularly in Wisconsin and Michigan.

Five of the thirteen states surveyed have statutes which authorize citizen suits. Under the Indiana statute,[1] anyone may sue to protect the environment from "significant pollution."

However, no action may be maintained unless the administrative agency which has jurisdiction over environmental pollution has been given notice in writing of the specific act complained of, and that agency has failed to hold a hearing and make a final decision within one hundred eighty (180) days after receipt of the notice. The criteria for determination in such actions is that no conduct, program or product shall be allowed to continue if that conduct, program or product impairs or is likely to impair the environment and there is a feasible alternative.[2]

The Massachusetts statute[3] permits a minimum of ten private persons to intervene in adjudicatory proceedings before an administrative agency when the issue is "damage to the environment."

The Thomas J. Anderson, Gordon Rockwell Environmental Protection Act of 1970 of Michigan[4] authorizes anyone to bring actions in the appropriate court "for the protection of the air, water and other natural resources" of the State. The burden of proof is on the plaintiff to establish a prima facie case "that the conduct of the defendant has, or is likely to pollute, impair or destroy air, water or other natural resources . . ." The defendent may then rebut the prima facie case and/or establish the affirmative defense that there is "no feasible and prudent alternative to defendant conduct . . ."[5]

Under the Minnesota Environmental Rights Act,[6] anyone may maintain an action for declaratory or equitable relief in the name of the state "for the protection of the air, water, land or other natural resources from pollution, impairment or destruction;" however, no actions may be maintained challenging acts not reasonably expected to cause pollution or violation of any environmental quality standards performed under either a permit or license. Once the plaintiff has made a prima facie case, the burden shifts to the defendant to establish that there is no feasible way to protect the natural resource.[7]

Under the Wisconsin statute any administrative agency may, on petition by any interested person, "issue a declaratory ruling with respect to the applicability to any person, property or state of facts of any rule or statute enforced by it." This statute was first used to litigate significant environmental issues such as the DDT controversy, filling of wetlands and odor pollution.[8]

Only three of these statutes, those in Indiana, Massachusetts and Wisconsin, specifically provide for hearings and appeals, but all of these statutes, except Massachusetts' and Wisconsin's authorize resolution of the issues by a court which may grant equitable relief including injunctions and declaratory judgment and may also impose other conditions in order to protect the environment. On the other hand, only the Massachusetts statute, which does not provide citizen access to the courts in environmental matters, authorizes intervention in adjudicatory administrative agency hearings. There is, however, some question as to whether a citizen as a "party aggrieved," individually or on behalf of others similarly situated, requires statutory authority to intervene in an administrative proceeding. The Wisconsin statute authorizes the court to grant declaratory relief only.

COASTAL ZONE PROTECTION

These statutes usually seek to protect a zone of limited area which borders the coastlines in certain states, but are generally drawn broadly enough so that the states could control any nonpoint source of water pollution which might affect coastal zones. Prohibiting sedimentation of estuaries is a particular case in point and could exert significant influences on agriculture, silviculture, mining, and construction activities at sites far removed from the coastal zone.

The California Coastal Zone Conservation Act of 1972[9] establishes a State Coastal Zone Conservation Commission and several regional commissions which collectively cover all of the California counties contiguous to the Pacific Ocean. The Coastal Zone Conservation Commission is responsible for developing a plan providing for land use regulations and conservation of natural resources, for the maintenance and enhancement of the "coastal zone environment" although the plan is subject to approval by the State legislature. The regional commissions may issue permits for land development in their coastal zone jurisdictions, and no land development may take place in the coastal zone without a permit, and no permit may be granted unless the proposed developments can be shown to have no substantial adverse effect on the environment.[10] The State Commission can overrule any actions of the regional commissions which may result in environmental damage to the coastal zone. The California Coastal Zone Conservation Act of 1972 is essentially a moratorium or attempt to slow down development since it expires on January 1, 1977.

The Hawaii statute[11] authorizes the Department of Planning and Economic Development to prepare a coastal zone management plan that complies with the requirements of the Federal Coastal Zone Management Act.[12] The plan shall serve as a guide for the State Land Use Commission and other state agencies.

The Massachusetts statute,[13] unlike the other five statutes in this section, deals with coastal waters rather than coastal lands and designates no administrative agency or particular official to enforce the statute. Under this statute no one may discharge oil, sewage, poisons or other substances which are injurious to public health or to shellfish into coastal waters unless they have a permit which comports with Federal and State pollution control laws or unless an emergency exists.

The Michigan Shorelands Protection and Management Act of 1970[14] authorizes the Water Resources Commission to develop a plan for the use and management of shorelands which will serve as a guide for the promulgation of rules and regulations to control the use and development of shorelands. All local ordinances must conform with these rules, and if they do not, the Commission may nullify them. The stated purposes of these rules include prevention of soil erosion and water pollution. "Shorelands," as used in this Act and the Minnesota Shorelands statute is used in a manner similar to "coastal zone" in the other statutes.

The Minnesota statutes[15] authorize the Commissioner of Natural Resources to develop standards and criteria for the use and development of shorelands in municipalities and unincorporated areas, and one of the stated purposes of the statute is to preserve water quality. Municipalities and counties, are authorized to enact ordinances, rules and regulations which conform to the Commissioner's standards. The Commissioner may promulgate ordinances, rules or regulations for any municipality or county which has failed to adopt adequate ordinances, rules or regulations.[16]

The Texas Coastal Public Lands Management Act of 1973[17] differs from the other statutes in this section in that it deals only with the public lands and not all lands in the coastal zone. However, it is similar to the Hawaii coastal zone statute in that it seeks to comply with the requirements of the Federal Coastal Zone Management Act. Under this statute, the School Land Board is directed to develop a comprehensive coastal public lands management program which will preserve natural resources. The Board may regulate the manner of construction of all structures to be built on coastal public lands. This statute is the only one of this group which specifically authorizes the agency to hire staff.

The Hawaii statute, the Michigan Shorelands Protection and Management Act of 1970 and the Minnesota statute are the only ones which specifically provide for funding.

The California Coastal Zone Conservation Act of 1972[18] authorizes hearings on permit applications and judicial review of permit refusals. None of the other statutes authorize hearings and appeals on permits. The Texas Coastal Public Lands Management Act of 1973 permits any aggrieved person to seek judicial review of any adverse agency decision. All of these statutes, except for the Massachusetts statute and the Texas Coastal Public Lands Management Act of 1973, specifically authorize their respective agencies to formulate land use plans which protect the coastal zone environment. All of these states, except for Hawaii and Massachusetts, authorize the appropriate agencies to issue rules and regulations to enforce their statutes.

Injunctions may be obtained under all of these statutes except for the Hawaii statute and the Texas Coastal Public Lands Management Act of 1973. Only the California Coastal Zone Conservation Act of 1972 authorizes declaratory judgments. The Hawaii statute authorizes condemnation as a means of enforcement and implementation, while providing no other civil remedies. The Massachusetts statute is the only one which authorizes the owner of any fish or shellfish, whether it be a private person or the government (city, town, or commonwealth), to sue anyone whose action injures such fish or shellfish. Treble damages will be awarded if the suit is successful. The Minnesota statute is the only one which authorizes mandamus actions.[19]

The California Coastal Zone Conservation Act of 1972[20] provides civil penalties of up to $10,000 for general violations of the act plus additional penalties of up to $500 a day for illegal land development in the coastal zone. The Minnesota statute has a civil penalty of at least $100 for each lot or parcel whose development violates land use restrictions in the shorelands areas. The Texas Coastal Public Lands Management Act of 1973[21] has civil penalties for a variety of violations of land use regulations, some of which have a minimum of $50 and a maximum of $1000 and others of which have no minimum, but a maximum of $200. None of the other statutes researched have monetary civil penalties.

The California Coastal Zone Conservation Act of 1972[22] authorizes anyone to maintain an action seeking various civil remedies. The Hawaii statute enables the State, the counties and their agencies (which includes the agency that enforces this statute) to obtain the specified civil remedy (condemnation).[23] Under the Massachusetts statute, owners of fish or shellfish injured by pollution can claim treble damages, but in order to obtain an injunction, the Commissioner of Natural Resources must request the Attorney General to bring the action.[24] The Michigan Shorelands Protection and Management Act of 1970[25] authorizes the Water Resources Commission, the enforcing agency, to obtain the one stated civil remedy, injunction. The Commissioner of Natural Resources, who administers the Minnesota statute, does not enforce any of the civil remedies. Under that statute, a county or municipality can get an injunction;[26] a taxpayer or a municipality can bring a mandamus action;[27] and a county can enforce the civil penalty.[28] The Texas Coastal Public Lands Management Act of 1973 does not indicate who enforces the civil remedy.

Only the Massachusetts statute and the Minnesota statute provide criminal penalties. Under the Massachusetts statute, there is a fine of not less than $150 nor more than $5000 and/or imprisonment of up to one year for anyone who discharges pollutants into coastal waters.[29] Any violation of the Minnesota Shorelands statute will result in a fine of not more than $300 and/or imprisonment for up to 90 days.[30]

CRITICAL AREAS PROTECTION

These statutes protect certain specially designated "critical areas" of the states which the state legislatures feel are in need of special protection from environmental damage. Under such statutes nonpoint sources of water pollution might be controlled. The Minnesota Critical Areas Act of 1973[31] allows the governor to designate certain areas that are endangered by uncontrolled land development as "critical areas." Under a Virginia statute,[32] the Division of State Planning and Community Affairs is requested to "develop criteria, both qualitative and quantitative, which shall be used in the identification and delineation of the State's critical environmental areas," and then to set up such areas and protective areas about critical environment areas. The Division is also requested to establish land use regulations for these areas.

Both statutes depend on more than one governmental agency in order to carry out the law. After the governor has designated "critical areas" under Minnesota's Critical Areas Act of 1973, the Minnesota Environmental Quality Council or the local unit of government may adopt plans and regulations dealing with land use. While the State Environmental Quality Council may adopt general rules and regulations, it is the local units of government that actually enforce the act. These local government units may also issue development permits, which may be required before building or other development within a critical area commences. Such permits must conform to the plans and regulations adopted for critical areas.

The Virginia statute provides a simpler procedure. After the Division of State Planning and Community Affairs has identified the state's critical environmental areas, standards for land use within the critical areas are to be developed but will not become effective until they have been approved by the General Assembly. Unlike Minnesota's "Critical Areas Act of 1973," there is no provision in the Virginia statute for permits, rules and regulations, although the Division may recommend regulations to the General Assembly. The Virginia statute also provides for public hearings on the designation of critical environmental areas.

Neither statute provides any civil remedies or criminal penalties.

FINANCIAL INCENTIVES (MONETARY AID AND TAX CONCESSIONS)

Financial incentive statutes encourage, but do not compel, actions which may prevent or minimize damage to the environment. Two of the states surveyed have statutes which authorize financial incentives.

The Environmental Aid Act of New Jersey[33] simply enables the Department of Environmental Protection to grant up to $2500 per year to any local environmental agency for any purpose that the agency is authorized by law to perform.

Under the Virginia statute,[34] it is the offical policy of Virginia to conserve the State's natural resources in a manner that will prevent erosion, preserve natural scenic beauty and promote proper land use planning by assessing selected real estate at a lower than normal rate for tax purposes . Real estate devoted to agricultural, horticultural, forest and open space use, will be assessed only for its value for those purposes, as opposed to its normal commercial value. Any county, city or town which has a land use plan may adopt an ordinance directing the Commissioner of Taxation to value qualifying real estate only on its value for those purposes. If anyone receiving this lower tax assessment changes the use of his land, he may be assessed at the higher tax rate for the five year period prior to the change.

Neither statute contains any civil remedies or criminal penalties.

FLOOD PLAIN REGULATIONS

Flood plain regulations often control erosion which causes or at least exacerbates floods. Since erosion is also a cause of nonpoint source pollution, these regulations can sometimes be used to indirectly control such pollution. Two states surveyed, Kansas and Minnesota, have flood plain regulations. Under the Kansas flood plain statute, the Chief Engineer of the

Division of Water Resources must approve all proposed ordinances of cities and other political subdivisions that relate to land use in flood plains.[35]

Under Minnesota's Flood Plains Management Act,[36] the Commissioner of Natural Resources shall take whatever actions are necessary to manage the flood plains in order to reduce flood damage. Local governments must adopt adequate flood plains management ordinances. If any local government fails to do so, the Commissioner shall adopt such an ordinance for that local jurisdiction. The Commissioner shall also coordinate all local, State and Federal flood plains management activities. There are also prohibitions against the building of structures which restrict river capacity and restrictions on the alteration of existing structures in flood plains.

Both statutes allow the enforcing official to make rules and regulations to carry out the law. However, only Minnesota's Flood Plains Management Act provides civil and criminal[37] penalties. Violations of this act may be enjoined by the Commissioner of Natural Resources or a local governmental unit as a public nuisance.[38] Violations are also punishable as misdemeanors.

GENERAL HEALTH AND WELFARE CONTROLS

These statutes represent a small sampling of a large body of statutes which seek to protect the public health, safety, and welfare. Since water pollution can represent a threat to the public health, safety and welfare, such statutes can be used to control nonpoint sources of water pollution.

Two of the states searched and one of the local jurisdictions searched have statutes or ordinances protecting the public health, safety and welfare which may be of use in controlling pollution from nonpoint sources. The Kansas and two Michigan[39] statutes are all enabling acts which give the cities of Kansas and the townships and villages of Michigan the power to either make regulations (in the case of Kansas)[40] or pass ordinances (in the case of Michigan),[41] and to protect the public health, safety and welfare. The Kansas statute and one of the Michigan statutes[42] also give the cities of Kansas and the villages of Michigan the power to abate nuisances. Nuisances are more thoroughly discussed in the "Nuisances-Obstructions" category. The Land County Ordinance also has the purpose of protecting the public health, safety and welfare, but the County Board of Commissioners must first declare that a public health hazard exists in a certain area of the county before action can be taken.

The Kansas statute provides no civil or criminal penalties. The only penalty in the Lane County ordinance is that the Lane County Health and Sanitation Department must deny all building permit applications within the designated health hazard area.

GENERAL POLLUTION CONTROLS

This section contains a large group of miscellaneous statutes and ordinances which control pollution in some manner, but which do not fit into any of the other sections. Eight of the states and three local jurisdictions surveyed have statutes or ordinances which fit into this section.

A Hawaii statute[43] requires that all public contracts awarded pursuant to public contract provisions shall make provisions for pollution control when applicable. An Indiana statute[44] authorizes the Board of Health to make rules or regulations and issue orders to abate or prevent water pollution. The Indiana water supply statute[45] prohibits anyone from causing or allowing any substance which is deleterious to public health, industry or agriculture to be deposited in state waters. Another Indiana cities statute[46] gives a whole series of powers to cities, some of which could be used to control nonpoint sources of water pollution. Such powers include the powers to regulate, to license and to prohibit the disposal of wastes, the power to prohibit the introduction of substances which endanger the public health into watercourses, the power to regulate land use, the power to regulate, to prohibit or to control any movement of the earth beneath the surface (as in mining), and the power to perform any other function, in the public interest in the conduct of municipal affairs, which is not prohibited by the United States or the State constitution. The Indiana sewage statute[47] gives regional water and/or sewage districts the power, inter alia, to prevent the polluting of the water supply in the district.

A Massachusetts statute[48] creates a Division of Environmental Protection within the Department of the Attorney General. The Attorney General has the authority to prevent or remedy damage to the environment caused by any person, agency, department, board, commission, division or authority of the Commonwealth of Massachusetts or any local jurisdiction thereof. Another Massachusetts statute[49] authorizes the Commissioner of the Department of Public Health to issue cease and desist orders against anyone who violates pollution statutes, rules or regulations.

A Michigan statute[50] allows a county charter to provide for the abatement of water polution, among other powers. Another Michigan statute[51] gives Fourth Class cities the powers, inter alia, to abate nuisances and prohibit the depositing of pollutants into rivers, ponds, canals and streams of the city. A third Michigan statute gives the city councils of Fourth Class cities the authority to specifically prohibit the depositing of any filth, logs, floating matter or any injurious object into any city waters, and to generally provide, by ordinance, for the preservation of water purity in any harbor, river or other waters within the city and within one-half mile of its boundaries.[52] There is considerable overlapping in the powers conferred on Fourth Class cities by the last two statutes.

A Minnesota statute[53] provides that before the state conveys any lands to the United States for the Voyageurs National Park, the State shall enter into a written agreement with the Secretary of the Interior providing that he will maintain the highest standards of water quality in the parks. Another Minnesota statute[54] says that the Commissioner of Natural Resources shall examine the plans of any person or company that wishes to exercise the right of eminent domain to acquire land to be used for oil storage or transport in order to determine the environmental impact of such plans. These plans must have the Commissioner's approval before eminent domain powers may be exercised. The Commissioner could refuse to give approval to any plans which might increase nonpoint sources of water pollution.

A New Jersey statute[55] allows cities and/or counties to form joint commissions for the alleviation of flood conditions, but they may undertake flood control works only in a manner approved by the State Department of Environmental Protection, which could impose standards that would minimize nonpoint source pollution.

A Utah statute[56] prohibits pollution of waters deemed necessary for wildlife purposes by the Wildlife Board or any other waters containing aquatic wildlife. The Virginia constitutional provision declares that it is the general policy of the Commonwealth of Virginia "to protect its atmosphere, lands and waters from pollution..."[57] The General Assembly is granted the authority to pass statutes to control water pollution by this same provision. A Virginia statute[58] states that it is the policy of the Commonwealth to prevent water pollution; all laws and regulations shall be interpreted and administered in accordance with that policy. Another Virginia statute[59] permits any county to adopt regulations for the prevention of water pollution and to regulate construction activities for the same purpose. A third Virginia statute[60] confers similar powers on cities or towns. A fourth Virginia statute makes it unlawful for anyone to dump, place or put, directly or indirectly, upon the banks of, or into the channels of, any Commonwealth waters, any object or substance which may reasonably be expected to obstruct or contaminate such waters. This statute is a direct control on nonpoint sources of water pollution. For example, engaging in practices which result in erosion may be defined as a form of indirectly placing contaminating substances upon the land near bodies of water.[61]

A Honolulu ordinance[62] empowers the Board of Water Supply to adopt rules and regulations for the prevention of water pollution within the city. A Washington County solid waste control ordinance[63] enables the Board of County Commissioners to promulgate rules and regulations for the collection, storage, transportation and regulations for and disposal of waste and solid waste. These rules and regulations may include provisions to prevent water pollution "through frequency and regularity of collection and by proper design, construction, operation and maintenance of collection equipment. . ." and containers. No one may collect, store, transport or dispose of any waste or solid waste in the unincorporated areas of Washington County unless he first obtains a certificate issued by the Board. A second Washington County ordinance, the Solid Waste Disposal Site Ordinance,[64] makes it unlawful for anyone "to store, deposit, collect, maintain or display on private property wastes or solid wastes, that are hazardous to the health. . ." unless he has a franchise from the Board of County Commissioners to operate such a disposal site. In addition, the Board may promulgate regulations to prevent pollution of surface and underground waters. This ordinance also has special provisions and regulations which specifically control agricultural and construction wastes. The Plumbing Ordinance[65] of Washington County requires anyone who wishes to engage in sewage disposal system works to be the holder of a current certificate issued pursuant to state law and to be registered with the Department of Public Health of Washington County. The ordinance further states that no one may engage in the business of a journeyman plumber unless he has a certificate of competency from the state; nor may anyone perform any work as an apprentice plumber unless he is registered according to state law. In addition, no one may repair, alter, renovate or install a plumbing or sewage disposal system unless he has obtained a permit from the Department of Public Health. Furthermore, no one may demolish a building unless he has securely plugged all sewage disposal system openings. In addition, the Board of County Commissioners may promulgate rules and regulations to protect the public health, safety and welfare which could include regulations to prevent water pollution.

The Drainage Code of the City of Bellevue, Washington,[66] "establishes the minimum level of compliance which must be met to permit a property to drain to the City of Bellevue drainage system." The drainage utility will only accept for service the drainage from those properties which meet the storage, quality and discharge requirements for storm and surface water runoff as described in this ordinance. It may refuse service by refusing to issue a drainage use permit to any property not meeting these requirements. "No building permit or clearing and grading permit will be issued by the City of Bellevue until a drainage use permit has been issued."[67] The ordinance also specifically prohibits anyone from permitting water pollutants to enter the drainage system or to be transmitted from one part of the system to another. There are also specific prohibitions against permitting agricultural (specifically, animal wastes) or construction-related (specifically sediment)pollutants from entering the system. The stated purpose of these prohibitions is to maintain all waters, streams and lakes which receive city drainage at the lake class water quality standards of the Washington State Department of Ecology.

Because of the large number of statutes and ordinances in this section most of the comparisons will be made by numerical summary except in those cases in which special attention ought to be drawn to a particular statute or ordinance.

Seven[68] of these statutes and ordinances permit the enforcing agency to hire staff to administer the statute or ordinance. Eight[69] of these statutes and ordinances provide for some kind of funding. One of the Indiana statutes[70] enables cities to borrow money, accept donations and fix or levy a charge or assessment against property benefited by city services. A Minnesota statute[71] allows the State auditor to sell bonds to raise money to buy land for the park mentioned in the statute, but the bonds may not exceed $5,870,000. A New Jersey statute[72] specifically authorizes the participating cities and towns to appropriate whatever money they feel is necessary to enforce the statute and, in addition, enables the enforcing agencies to apply for grants from county, State and Federal agencies.

The Honolulu ordinance allows the enforcing agency to issue revenue bonds.[73] Unlike the Minnesota park statute, there is no monetary limit on the amount of bonds that can be sold. The three Washington County ordinances[74] and the Bellevue Drainage Code[75] authorize the enforcing agency to collect license fees. Of the four, only the Washington County Solid Waste Disposal Site Ordinance specifically allocates the money received for enforcement purposes, but it could probably be assumed that the money received under the other three ordinances may be for the same purpose. The Bellevue Drainage Code also raises money by levying a monthly service charge on all properties which use the city drainage system and a lump sum charge for connection to existing drainage facilities. While no purpose for these monies is stated, they are apparently used for operating the drainage system and extending it.

The Indiana statute,[76] the Honolulu ordinance and the three Washington County ordinances provide for quasi -judicial hearings. The Michigan statutes,[77] the Virginia statutes[78] and all five ordinances[79] enable an aggrieved person to appeal an adverse agency decision. The Indiana statute[80] and all five ordinances[81] require that anyone who wishes to engage in activities that may cause water pollution must first obtain a license (also called a "certificate," "franchise" or "permit" in the various laws). Ten statutes and ordinances enable the enforcing agencies to issue orders, rules and/or regulations to enforce the law.[82]

The three Washington County ordinances require that the County Board (with a few exceptions which will be noted) seek enforcement through the civil remedies even though other agencies administer these ordinances generally. In a similar fashion, the Bellevue Drainage Code requires that the city of Bellevue enforce the civil remedies even though another agency administers the ordinance generally. In all other cases (with a few exceptions which will be noted), the same agency which administers the statute or ordinance generally may also seek enforcement.

Nine statutes and ordinances empower the appropriate agency to obtain an injunction to enforce the law.[83] Two statutes differ from the pattern described in the previous paragraph. One of the Indiana statutes[84] permits any citizen to seek an injunction; a Virginia statute[85] permits either the Commonwealth Attorney or a private citizen whose property has been damaged by pollution to seek an injunction.

The Washington County Solid Waste Control Ordinance and the Plumbing Ordinance of Washington County authorize both mandamus and abatement actions. The Honolulu Ordinance, the Washington County Solid Waste Control Ordinance, and the Washington County Solid Waste Disposal Site Ordinance enable the agency to deny, suspend or revoke permits, while the Plumbing Ordinance of Washington County and the Bellevue Drainage Code authorize only the denial of permits.

The Bellevue Drainage Code has two additional civil remedies. First, anyone who violates any of the provisions of the "Drainage Code" shall be subject to a maximum civil penalty of $250 for each day that the violation continues. Secondly, anyone who pollutes the city drainage system shall be liable to the city for all costs incurred by the city in cleaning up the system. The Indiana statute[86] has three additional civil remedies. First, anyone who willfully fails to comply with the rules and regulations of the enforcing agency shall be liable for damage caused by such failure. Secondly, the enforcing agency may physically remove any harmful obstruction which violates any of the rules and regulation. Sediment from nonpoint sources could cause an obstruction. Thirdly, the enforcing agency may enforce its rules and regulations by an "other legal remedy" (not specified). The Massachusetts environmental[87] statute has one additional civil remedy. The enforcing agency may bring an "action at law" (which action is not specified). This remedy is quite similar to the third additional Indiana sewage statute remedy.

Eleven[88] statutes and ordinances contain criminal penalties. The maximum possible fines range from $250 to $1000 and the maximum possible imprisonment ranges from thirty days to twelve months. None of the statutes and ordinances contain a minimum possible imprisonment, and only one, the Virginia contamination statute, contains a minimum possible fine, $100 (and a maximum of $500).

Seven[89] statutes provide for no civil or criminal penalties. The second Michigan statute[90] says that a township may impose penalties of fines not to exceed $500 or of imprisonment not to exceed 90 days or both for violation of its ordinances.

PLANNING, ZONING, AND OTHER LAND USE REGULATIONS

Statutes regulating land use indirectly control nonpoint sources of water pollution because of the limitations that they place on certain land uses. Eight of the states searched and two of the three local jurisdictions searched have land use statutes or ordinances.[92]

All of the state statutes discussed in this section are enabling acts, which give some governmental agency the power to regulate land use in a given area by planning or zoning ordinances or regulations. The language of each statute is so broad in scope that it should enable the designated governmental unit to control nonpoint sources of water pollution.

The Lane County ordinance[93] is a direct control on land use. The Bellevue ordinance is a policy resolution which mandates the incorporation of certain policies into all city land use regulations.[94] Both ordinances contain broad language similar to that found in the statutes.

Some of these statutes and ordinances also contain specific provisions which are closely related to the control of certain nonpoint sources. The Hawaii statute[95] gives conservation districts the power to specifically prohibit the unlimited cutting of forest growth and soil mining in officially designated "forest and water reserve zones." The Virginia statute[96] gives cities and counties the similar power to regulate "the excavation or mining of soil or other natural resources." In addition, the Lane County ordinance requires a development permit before anyone may engage in rocks, sand, gravel and loam excavation in excess of 1,000 yards per year on any unzoned land in the county. Two Minnesota statutes,[97] the Municipal Planning Act of New Jersey,[98] the Virginia statute,[99] the West Virginia planning statute,[100] and the Wisconsin statute[101] all provide for land use regulations to control soil erosion, siltation, and sedimendation or to promote soil conservation generally.

Three of the statutes and two ordinances specifically mention environmental or pollution controls. The Virginia Area Development Act[102] gives a special planning district commission the power to carry out a program of small stream maintenance for the purpose of environmental improvement of an experimental basis until July 1, 1976. Both the West Virginia statute[103] and the Wisconsin statute[104] permit local governmental units to make laws controlling stream pollution. The Lane County ordinance[105] says that no development permits may be granted for any use or activity on unzoned county land unless that use or activity will not result in significant water pollution. The Bellevue ordinance[106] says that it is the City's policy that adequate protection should be provided against water pollution caused by silt and sedimentation.

The Hawaii statute,[107] the Minnesota statute[108] and the West Virginia statute[109] are the only ones which specifically authorize their respective agencies to hire the necessary staff. The Minnesota statute, the West Virginia statute and the Lane County ordinance are the only ones to specifically provide for funding. All of the statutes, except for the Hawaii statute, the two New Jersey statutes, the Virginia Area Development Act, the West Virginia statute and the Bellevue ordinance provide for both hearings and appeals. The West Virginia statute provides for appeals only from such decisions.[110] The Hawaii statute provides for hearings only on whether or not to permit new uses within the specifically designated "forest and water reserve zones."

Only the West Virginia statute and the Lane County ordinance require permits for certain types of land uses. The Bellevue ordinance requires any city official who issues building permits to implement the City's policies on pollution control. The West Virginia statute and the Lane County ordinance specifically authorize the denial of permits to those applicants who fail to meet certain conditions. Only the Lane County ordinance provides for revocation of an existing permit.

All of these statutes and ordinances except for the Bellevue ordinance permit the regulating agency to promulgate regulations in order to carry out their mandate. Some statutes and ordinances divide the power between more than one agency or at least require the enforcing agency to consult with other agencies before making a decision.

The two Minnesota statutes, the New Jersey statute, the North Dakota statute, the Virginia statute and the West Virginia statute all authorize some public official to seek injunctions restraining violations of these statutes.[111] In all cases except for one of the Minnesota statutes[112] and the Virginia statute[113] the same officials who execute the statutes generally can seek injunctions.

The Hawaii statute, the two Michigan statutes, the two Minnesota statutes, the New Jersey statute, the West Virginia statute and the Wisconsin statute all authorize some public official to impose civil penalties on violators. In all cases, except for one of the Minnesota statutes[114] and the West Virginia statute the same officials who execute the statutes generally can enforce the civil penalties. However, under the Wisconsin statute, anyone may bring suit to enforce the civil penalties. In the cases of the two Michigan statutes, one of the Minnesota statutes[115] and the West Virginia statute, the enforcing official may set the penalties. In the cases of the Hawaii statute, one of the Minnesota statutes,[116] the New Jersey statute and the Wisconsin statute, the maximum penalties range from $50 to $2,500.

In the two Michigan statutes,[117] the enforcing official may bring an action to abate a nuisance caused by a violation. In the two Minnesota statutes a taxpayer may institute mandamus proceedings to compel the appropriate enforcement officials to specifically perform their duties under the respective statutes. The Hawaii statute permits owners of real estate directly affected by an action of the agency to bring suit to enforce the zoning regulations. The Minnesota statute[118] permits municipalities to use mandamus actions to enforce their planning ordinances.

Violation of the two Minnesota statutes, the North Dakota statute, the Virginia statute and the Land County ordinance are all misdemeanors; the maximum penalties range from $200 to $500 fines and from no imprisonment to six months imprisonment. The New Jersey Municipal Planning Act, the Virginia Area Development Act and the Bellevue ordinance contain no civil or criminal penalties.

NUISANCES -- OBSTRUCTIONS

These statutes represent a small sampling of a large body of statutes which authorize the abatement of nuisances or the prevention of obstructions to navigation. The majority of these statutes are enabling acts which delegate power to abate nuisances or prevent obstructions to some local unit of government. Six of the states and one of the local jurisdictions searched have nuisance or obstruction statues or ordinances.[119]

All of these statutes[120] except for one of the Minnesota statutes,[121] the North Dakota statute[122] and the Washington County ordinance are enabling acts which give a village, city, county or, in the case of the West Virginia statute,[123] the city Board of Park and Recreation Commissioners, the power to abate nuisances or prevent obstructions or both. The Minnesota and North Dakota statutes as well as the Washington County ordinance provide for direct controls over nuisances and obstructions.

None of these statutes specifically mentions the power to hire staff or the method of funding. None of them provides for hearings, but the two Michigan statutes,[124] one of the Minnesota statutes[125] and the Virginia statute[126] provides for appeals. None of these statutes except for the West Virginia statute[127] enables the agency to make rules and regulations, and none authorizes an agency to issue licenses and permits.

Only two of these statutes, the North Dakota and Virginia statutes, provide for injunctions. The North Dakota statute[128] permits anyone to seek an injunction to abate a nuisance while the Virginia statute[129] allows the official body which enforces the statute (in tnis case, municipalities), and no one else, to seek the injunction. All of the statutes except for one of the Michigan statues[133] provide for criminal penalties only. The other Michigan statute[134] enables the enforcing body to prevent obstructions as well as to abate nuisances. The West Virginia statute also permits the enforcing agency to provide additional penalties. In all cases, except for one of the Michigan statutes,[135] the public body which enforces the statute generally is also the one which can seek to impose penalties. In the case of the Michigan exception, the city council enforces the statute generally, but it is the city attorneys who must seek to enforce the penalties.

All of these statutes, except for the West Virginia statute, also provide for criminal penalties, with maximum fines ranging from $100 to $1000 and maximum possible imprisonment from ninety days to one year.

PREVENTION OF LOADS SPILLING ON HIGHWAY

Although this group of statutes could actually be part of the nuisance section, because of their special emphasis, they have been considered separately. All of these statutes require that anyone operating a vehicle which is carrying a load on a public highway must prevent that load or any part of it from spilling on the public highway, and may be utilized for control of water pollution from highway runoff. Highway runoff is one of the transport systems for movement of contaminants from agricultural, silvicultural, construction and mining nonpoint sources directly to surface waters and indirectly by means of percolation and inflitration to groundwater systems.

Nine of the states surveyed have statutes which prohibit the spilling of loads on highways.[136] The Massachusetts statute, the Michigan Vehicle Code, one of the two New Jersey statutes, the Utah statute, the West Virginia statute and the Wisconsin statute all require that loads on vehicles traveling on public highways be securely fastened so as to prevent leakage or spillage onto the highway.[137] The Minnesota statute is similar but limited to forest products.[138] One New Jersey statute[239] is more general in that it prohibits anyone from placing injurious substances on highways (which includes loads spilling from vehicles); this statute serves to reinforce the other New Jersey statute.[140] The Salt Water Haulers Act of Texas[141] is limited to salt water which could pollute a body of fresh water. One of two Virginia statutes prohibits anyone from depositing "upon any highway any soil, sand, mud, gravel or other substances so as to create a hazard to the public."[142] (As in the case of the New Jersey highway statute, this prohibition includes loads spilling from vehicles.) The other Virginia statute[143] requires that loads, whose weight exceeds state maximum weight limits, must be sealed before vehicles carrying such loads can qualify for special permits to operate on state roads or highways.

Only the Michigan Vehicle Code, the New Jersey highway statute and the Utah statute specifically authorize the hiring of staff. Only the two New Jersey statutes and the Minnesota statute specifically provide for funding. Only the New Jersey vehicle statute and the Salt Water Haulers Act of Texas specifically provide for appeals. Three statutes, the Minnesota statute, the Salt Water Haulers Act of Texas and the Virginia vehicle statute require permits for the hauling of loads on public highways. Of the three, only the Texas Salt Water Haulers Act specifically provides for rejection of a permit application and suspension or refusal to renew a permit. However, the New Jersey vehicle statute, which does not require a permit for hauling loads, does authorize the Director of the Division of Motor Vehicles of the Department of Law and Public Safety to suspend or revoke the vehicle registration certificate or the driver's license certificate of anyone who improperly loads his vehicle or otherwise violates the vehicle statute. The Michigan Vehicle Code, the two New Jersey statutes, the Salt Water

Haulers Act of Texas and the Utah statute all authorize the enforcing agency to write rules and regulations to enforce the statutes.

None of the foregoing statutes specifically authorize anyone to obtain an injunction to enforce the statutes. However, five of the statutes authorize someone to seek civil remedies.[144] The Minnesota and Utah statutes authorize the enforcing agency to recover damages for harm caused by loads spilling on the public highway from violators of the statute. The two New Jersey statutes and the Wisconsin statute provide for civil monetary penalties. The New Jersey highway statute provides a minimum penalty of $10 and a maximum penalty of only $20. The New Jersey vehicle statute has no minimum penalty but a maximum penalty of $500. Both penalties are enforced by the same authorities who enforce these acts generally. The Wisconsin statute has several penalties which range from a minimum of $10 to a maximum of $400; it does not specify who enforces them. Massachusetts also provides penalties ranging from $10 minimum to $100 maximum. The wording of the statute makes it unclear as to whether these are civil or criminal penalties; no specific mention of the enforcer is made.

The Michigan Vehicle Code, the Minnesota statute, the New Jersey vehicle statute, the Texas Salt Water Haulers Act, the two Virginia statutes, and the West Virginia statute all provide for criminal penalties.[145] The maximum fines range from $100 to $1000 and the maximum imprisonment ranges from ten days to twelve months. Only the Texas Salt Water Haulers Act and the Virginia vehicle statute, however, set minimum penalties.

REMOVAL OF ICE AND SNOW: SALTING OF ROADS

As in the case of the last section, this group of statutes could also be treated as an element of nuisance; but because all of these statutes involve substances that are commonly used on roads to remove snow or ice and which become part of the general contamination attributable to highway runoff, and perhaps act synergistically with other elements of runoff from nonpoint sources, potentiating effects of agriculture, silviculture construction and mining activities, they are treated separately.

Two states have such statutes.[146] Section 5 of one of two Massachusetts statutes authorizes cities and towns to pass ordinances which provide for the removal of snow and ice from sidewalks by abutting landowners and for controlling the manner of removal.[147] Section 7A of that statute prohibits anyone from storing sodium chloride, calcium chloride, chemically treated abrasives or other chemicals used for the removal of snow and ice from roads in such a manner or place as to subject any water supply or ground water supply to the risk of contamination.

The other Massachusetts statute[148] authorizes the Department of Public Works to establish regulations for the clearance of snow from tracks on State highways. Similar power is given to the superintendents of streets of cities and towns concerning city or town tracks.

The Minnesota statute[149] requires the highway authorities of cities, villages and boroughs to limit the use of salt for snow removal to the road surfaces of hills, turns, and other critical areas of those roads where plowing or sanding will not sufficiently clear those roads. One of the stated purposes of the statute is to "reduce pollution of waters" caused by such salt.

None of these statutes specifically provides for funding, hiring staff, hearings, appeals or licensing. The two Massachusetts statutes authorize the enforcing officials to promulgate rules and regulations, but the Minnesota statute does not do so. The Massachusetts sidewalks snow removal statute provides for the study of the impact of snow removal chemicals on water supplies.

The Minnesota statute provides for no criminal or civil penalties, and only the Massachusetts railway snow removal statute provides for injunctions which can be sought by an interested party. No other penalties are authorized, and the Massachusetts sidewalks snow removal statute provides for civil penalties only. The civil penalties are $10 for violation of a town ordinance and $50 for violation of a city ordinance or for the unlawful storage of snow removal chemicals. Towns and cities enforce their respective ordinances while the Department of Public Health enforces the unlawful storage provision. In all cases, these are the same officials who administer these statutes generally.

SOIL EROSION AND SEDIMENTATION CONTROL

Since sediment is the major water contaminant attributable to nonpoint sources and since erosion is the principal cause of sedimentation, these statutes represent important direct means of control of water pollution from nonpoint sources. This large class of statutes will be considered in four groups.

Five of the states and two of the local jurisdictions surveyed plus one additional state, Pennsylvania, have general soil conservation statutes.[150] All fourteen of the states surveyed have soil conservation district statutes[151] and two states have wind erosion statutes.[152] In addition, two states and one local jurisdiction have some special soil erosion statutes.[153]

The general soil conservation statutes are simply those which do not fit into any of the other parts of this section. A Hawaii statute[154] requires county governments, in cooperation with state and Federal agencies, to enact ordinances for the purpose of controlling soil erosion and sediment,[155] and if any county fails to enact such an ordinance, the State Department of Health is authorized to do so.

The Michigan Soil Erosion and Sedimentation Control Act of 1972[156] requires the Water Resources Commission of the Department of Natural Resources to adopt rules for a unified soil erosion and sedimentation control program including provisions for the approval of site plans, land use plans and permits.[157] Local governments enforce this act. Anyone who wishes to engage in any land development activities which change the natural cover or topography of the land must act in accordance with this act, the Commission rules, any applicable local ordinance and any applicable local permit. Anyone engaged in agriculture may enter into an agreement with the local Soil Conservation District to pursue those conservation practices which conform to the Commission's rules; if they do so, they will be exempt from the site plan, land use plan and permit requirements of this act.[158] However, this Act does not apply to land on which mining or logging activities are practiced nor to the plowing and tilling of land for the purpose of crop production or harvesting.[159]

In any proceeding to determine the feasibility of building a public drainage system under a Minnesota statute,[160] the authorities conducting the proceeding should give consideration to soil and water conservation and may order the planting of permanent grasses in drainage ditches to conserve the soil.

Under a Texas statute,[161] a county may lease its road building equipment to a private landowner to prevent soil erosion. Under the Utah statute,[162] the State Land Board may act to prevent floods by promoting revegetation of barren lands, which will also prevent soil erosion.

A Montgomery County ordinance[163] requires that anyone who wishes to do any grading, stripping, excavating or filling of land or to create borrow pits, spoil areas, quarries, material processing facilities or any other facility must first obtain a permit from the County Department of Environmental Protection, except as provided in a large list of minor exceptions listed in §19-3. The Director of the Department of Environmental Protection may attach any conditions to the permit deemed necessary to control soil erosion and sediment. Before issuing the permit, the Director shall require a performance bond to ensure that the permit conditions are properly performed.

A Bellevue resolution bars the relocation of streams when the erosive qualities of the streams will be increased and will contribute to an increase in silt and sediment load.[164]

The soil conservation statutes in all fourteen states are substantially similar and will, therefore, be discussed generally and by specific example from selected statutes. Most of the soil conservation district statutes grew out of the Dust Bowl disasters of the 1930's. The statutes in all fourteen states were originally enacted in the late 1930's. However, many of those states have amended this legislation to reflect current concerns, primarily that of water pollution resulting from erosion. Minnesota is one of these states. In 1973, the purpose clause of the Soil and Water Conservation District Act was amended to acknowledge that improper land use practices have caused and contributed to serious erosion of farm and grazing lands by wind and water and have contributed to deterioration of underground water reserves. The legislature went on to declare that it was in the interest of the public welfare, health and safety to provide conservation of the soil and soil resources and to prevent soil erosion.[165]

The idea behind the soil conservation district was to set up a local voluntary governmental entity with corporate powers which would educate, encourage, and undertake soil conservation projects. The districts have a variety of names depending on the state in question; the most common being "soil conservation district," but they are also called "soil and water conservation districts," "resource conservation districts" or simply "conservation districts."

The statutes delegated the following powers to the districts:

1. The power to develop a soil conservation plan for their district.
2. The power to carry out preventive and control measures including engineering operations, revegetation, methods of cultivation or changes in land use on land with the owner's consent.
3. The power to furnish financial or other aid including machinery, equipment, fertilizer, seeds and other materials to land owners wishing to embark on soil conservation projects.
4. The power to require land owners to use certain methods of cultivation, range practices and other land use practices to contribute money and services and materials as a condition for participating in the soil conservation district.
5. The power to adopt land use regulations.

The fifth power of soil conservation districts, the promulgation of land use regulations, is a relatively new power to these districts. The original soil conservation district legislation did not provide for enforcement of plans adopted by the districts. The early function of the district was to develop a plan, to educate landowners within the district about the plan and then to offer assistance to individual landowners for the implementation of the plan. The districts did not have the power, except upon the express permission of a landowner, to enter upon privately owned land and embark on a soil conservation project. The district did, however, have the power to own land and to undertake soil conservation projects on land which is either owned in the name of the district or by the state or county. With the advent of the power to adopt land use regulations, many of the districts were granted powers to enforce the land use regulations.

Michigan, New Jersey, North Dakota, Texas, Utah, Virginia, West Virginia, and Wisconsin have enacted legislation which authorizes the enforcement of land use regulations.[166] The Wisconsin legislation authorizes soil and water conservation districts to adopt regulations for the use of land lying within the district in the interest of conserving soil and water resources and controlling erosion, runoff and sedimentation. The regulations may specify completion of necessary engineering projects, the observance of particular methods of cultivation including contour cultivating, stripseeding and planting water conserving plants and erosion prevention plans. The regulations may also specify cropping programs. Provisions may also be made to protect lands exposed by grading, filling, clearing, mineral extractions and similar activities.

The regulations adopted under the Wisconsin legislation may limit the:

> "Size of the area to be exposed, the length of time in season during which it may be exposed, require the establishment of temporary water waste, storm drains, temporary debris basin, terraces and other structural and nonstructural methods to control erosion, runoff, and sedimentation."[167]

The Wisconsin legislation goes on to provide that the regulations may be enforced by other landowners within the district or by the county all of whom may seek injunctive relief from the local circuit court. There is no provision, however, for the district supervisors to enforce their own regulations.

The soil conservation district legislation in six other states with land use authority provides for enforcement of the regulations promulgated.[168] West Virginia and Virginia legislation provides that the district supervisors may sue in equity for nonconformance with land use regulations. The supervisors also have the right to enter and inspect for compliance.

Texas amended its soil conservation district statutes to authorize the promulgation of land use regulations.[169] The district supervisors are empowered to enter privately owned land to investigate for compliance with land use regulations.

The enforcement provisions in the Texas legislation are similar to those found in West Virginia. When the supervisors find a landowner in noncompliance, they may petition a court with jurisdiction to either order the landowner to undertake necessary work or to cease from improper activities. The court may order the district to undertake the required work itself and then to assess court costs against the landowner.

The Michigan legislature did not enact legislation authorizing district soil conservation supervisors to promulgate land use regulations; however, the Michigan legislature has enacted a Soil Erosion and Sediment Control Act[170] which authorizes regulations to be promulgated on the state level to control all major earth-moving activities except logging and mining. Agricultural activities come within the scope of this act, and enforcement is left primarily to the counties. Designated county agents may enter lands to inspect for compliance with soil erosion and sediment control regulations. The State or county may seek injunctions to bar inappropriate activities. Permits may be obtained at the county level. Persons guilty of violation of the sediment and erosion control regulations are guilty of a misdemeanor,[171] but the exact penalties are not specified in the act.

Two states have enacted statues specifically controlling wind erosion. The Kansas Wind Erosion Statute imposes a duty upon landowners to prevent dust from blowing from his land.[172] Where the landowner fails to fulfill this duty, the county may order cultivation of the land in the specific manner and restrict the times of the year during which the land may be cultivated. The board may also order specific projects to be undertaken to prevent or to minimize the blowing of dust. If the county bears the initial cost for this project, the landowner may then be assessed amounts sufficient to reimburse the county.

The Texas Wind Erosion Statute[174] are modeled upon the soil conservation district statutes. The Texas legislation set up wind erosion conservation districts which are empowered to seek to prevent undue damage to the land from the unnecessary movement of sand, dust, and soil from lands within or without the district. To achieve this end the districts are authorized to construct improvements to prevent erosion caused by wind, and the district's commissioners have the right to enter upon any lands within the district for the purpose of treating the land to prevent soil erosion. The governing body of each district may charge the owners of the benefited land for a portion of the total cost of any projects undertaken.

Under the provisions of the Clean Streams Act, which authorizes the Pennsylvania Department of Environmental Resources to regulate any activity which creates a danger of pollution or has a potential for pollution, regulations for controlling soil erosion and sedimentation from various activities have been promulgated.[175] The regulations under the act provide basic standards for erosion and sedimentation control. Permits are required for most earthmoving activities conducted within the Commonwealth of Pennsylvania;[176] however, earthmoving activities involving the plowing or tilling for agricultural purposes are exempt from the requirement of a permit. The regulations provide that such an activity, which does not require a permit, must still comply with all other provisions of the act and the regulations. To obtain a permit, applicants must develop an erosion and sedimentation control plan which must be approved by the County Conservation District in which the construction is to take place.[177]

The Department of Environmental Regulation may delegate administrative and enforcement duties to counties and other local governments provided the unit of local government has implemented an acceptable plan for administering the program. The local government must supply an adequate and qualified staff for the review of erosion and sediment control plans, for the surveillance and enforcement of this requirement. The Department retains the ultimate responsibility for the administration of the program. Agricultural activities apart from plowing and tilling came within the scope of this act on January 1, 1974; plowing and tilling[178] activities will come under control of the act on July 1, 1977.

All of the various soil conservation district statutes and wind erosion statutes authorizes the district or state agency with responsibility for implementation to hire staff. None of the legislation contains specific requirements or limitations on staffing. Regulations promulgated under the Pennsylvania Clean Streams Law require local units of government which wish to undertake enforcement of the act to hire a qualified and sufficiently large staff to administer and enforce the act effectively.

All soil conservation districts and wind erosion conservation districts in Texas are empowered to accept contributions, grants, state and Federal funds for the expenditures of carrying out their purposes.[179] The Hawaii, Massachusetts, New Jersey, North Dakota, Virginia and West Virginia statutes provide only for the acceptance of Federal grants, contributions, and gifts to the soil conservation districts.[180] There are no provisions for other funding except as may be provided under specific charter grants or the constitution of the state.

Legislation in California, Minnesota, and Texas provides the most generous funding for soil conservation activities. California authorizes the soil conservation districts to raise money by assessing landowners within the district on an annual basis.[181] The assessment which the districts may impose is not to exceed two cents per one hundred dollars of assessed value. The Minnesota legislation authorizes the State to bear the regular administrative cost of the district, and the counties in which projects are undertaken to bear the cost of the portion of each project carried out within its boundaries.[182] The Texas legislation for soil conservation districts allows the districts to retain any income from lease or sale of lands and allows them to issue notes for a period of up to one year in order to undertake projects.[183] The wind conservation districts in Texas have greater powers in that they may issue assessments based on the benefit to various landowners. These districts are also entitled to receive a portion of special road taxes, and they may issue bonds for periods of up to ten years.[184]

Kansas authorizes the supervisors of each district to prepare a budget request each year which is to be presented to the county boards.[185] The county is then to impose assessments on landowners in order to raise the funds needed by the district. Indiana, Michigan, and Wisconsin leave the financial support of soil conservation districts unspecified except for such state and county funds as which may be appropriated on an annual basis.[186]

The assessment provisions such as found in California are the most effective means of providing funds on a regular basis to the soil conservation districts. The imposition of a ceiling on the assessment which the districts may make protects landowners from unexpected tax burdens. The assessment mechanism, which allows for collection of the district funds through the property tax system, provides a reasonably efficient administrative design. Provisions such as those in Indiana which do not provide a steady and predictable source of income to the districts severely limit the effective planning of projects which those districts may undertake. The budget submission mechanism provided for under the Kansas legislation falls somewhere in between the provisions of California and Indiana in terms of assuring the effectiveness of the soil conservation districts. When the soil conservation district statutes were enacted, the prevailing idea was to set up a voluntary structure which would provide some direction to soil conservation efforts within the district. The acts were only intended to authorize the voluntary banding together of individuals into a district for the purpose of developing a conservation plan for the district. Then the district, through its supervisors, would undertake various activities with the consent of landowners to implement the conservation plan. Landowners within the district would be encouraged to undertake conservation measures on their property. This encouragement of soil conservation took the form of offering equipment and technical assistance to landowners willing to undertake various soil conservation measures.

Six of these states have not changed their soil conservation district legislation since its inception.[187] Thus, the statutes in these states provide no mechanism for enforcing the conservation plans developed in the district. Pennsylvania's soil conservation district legislation has not been amended to provide an enforcement mechanism,[188] but with the enactment of the Clean Streams Law the State legislature did provide a mandatory mechanism for controlling soil erosion and sedimentation.[189]

Eight states[190] amended their soil conservation district legislation to authorize the district supervisors to promulgate land use regulations for the district. In each of these cases a mechanism was provided to insure compliance with the land use regulations. The Michigan legislature did not provide the power to enact land use regulations to soil conservation districts. However, the legislature enacted the Soil Erosion and Sediment Control Act which provided for mandatory controls.[191]

The legislation in the nine states with enforcement provisions authorizes the district supervisors of the responsible agency to enter privately owned lands to inspect for compliance with regulations issued under the statutes, Michigan and Pennsylvania being the exceptions in this case. The foregoing established the mechanism for an initial determination of compliance and noncompliance with the regulations.

Enforcement

Six state legislations provide for injunctions against landowners who are in violation of the land use regulations. The legislation in North Dakota, Texas, Virginia, and West Virginia authorizes the district boards to go into court and seek an injunction or a bill of equity.[192] Activities conducted in violation of land use statutes may be enjoined. Where positive action must be taken to prevent soil erosion, the districts in these states may petition the court for an order directing the landowner to undertake the necessary work or for an order authorizing the district supervisors to enter upon the land and perform the required project. In all of the states, where the district undertakes the performing of a project under court order on the land of a private landowner, the district may recover the costs of the project and the legal proceeding.

Legislation in Michigan and Wisconsin empowers counties to enforce the soil erosion control regulations.[193] The Wisconsin legislation also allows private landowners to seek injunctions to enforce land use regulations. In Pennsylvania, any activity, for which a permit is required and not obtained, or which is conducted in violation of the permit, is declared by the statute to be a nuisance.[194] Such a legislatve declaration permits the local law enforcement officer to stop such activities without resorting to the court for a legal determination.

The criteria used for judging the effectiveness of various penalty provisions is discussed in this report in the introduction, and the following discussion will use the introductory material as a framework. Injunction and bill of equity provisions which allow the promulgating and inspecting body to seek the legal remedy are deemed to be more effective than provisions which require another governmental entity to seek legal action. Thus, under our system for judging effectiveness, the legislation of North Dakota, Texas, Virginia, and West Virginia is judged to be more effective for preventing violation of land use regulations than that of Wisconsin. Under the Michigan Soil Erosion and Sediment Control law, the counties have the power to inspect and enforce. Therefore, the Michigan style of statute falls into the first category.

The Wisconsin legislation provides for the seeking of injunctions by private persons. This is, on the surface, a particularly effective way of insuring the carrying out of regulations, since persons who would be at all harmed by the failure of the landowner to comply with land use regulations would have a speedy legal remedy at their disposal. However, no provision is made for the cost to be borne by the party violating the statute or by a specific fund. Therefore, private persons who would seek such legal remedy would have to be suffering from a serious harm in order for them to undertake the economic burden of pursuing the legal remedy. The Wisconsin legislation, while it allows private persons to seek an injunction, does not provide for the recovery of damages by the same persons.[195] Legislation in New Jersey and Utah authorize landowners, who suffer damage due to another landowner's failure to comply with land use regulations, to recover damages for the failure to comply.[196] The Utah legislation is slightly more difficult for a landowner to recover under than New Jersey's. In addition to establishing damage to his property through failure to comply with land use regulations, the landowner must also establish that the failure to comply resulted in increased erosion. In New Jersey this extra proof is not required, damages may be awarded simply for the failure to comply with land use regulations and subsequent damage to a landowner's property.

Only three states which were surveyed provide for criminal penalties under its soil conservation district statute.[197] Utah provides that persons found guilty of violating land use statutes are guilty of a misdemeanor which is punishable by a fine of $100 to $500 per offense.[198] Erosion and sediment control legislation in Michigan provide for a criminal penalty. The Michigan legislation does not specify the actual penalties but does say "the person found guilty of violating regulations promulgated under the act or failing to secure a permit when required for the conducting of land-moving operations is guilty of a misdemeanor.[199]

The Pennsylvania Clean Streams Law provides that any person or municipality who violates any provision of the act or any rule or regulation is guilty of a summary offense and upon conviction shall be subject to a fine of $100 to $1000 for each offense and upon default in paying such fine may be subject to imprisonment for a period of sixty days.[200] The legislation also goes on to provide that if within two years following such a conviction, the person or municipality again violates any provision of the act, rule, regulation or order of the department, such person or municipality is guilty of a misdemeanor and shall be subject to a fine of $100 to $5,000 for each offense.[201] The period of possible imprisonment in the case of a second offense may be for as long as one year. The Pennsylvania legislation also provides for the imposition of civil penalties which are payable to the State.[202] Civil penalties assessed for violations shall not exceed $10,000, plus $500 for each day of continued violation. In determining the amount of civil penalty, the willfulness of the violation, the damage or injury to waters of the Commonwealth, the cost of restoration and any other relevant factors shall be considered.

The penalties, both criminal and civil, which are imposed by legislation in various states are all of a similar nature. The imprisonments or fines imposed under the legislation are of a reasonable nature, and it is really not possible to say whether a $500 fine is more effective than a $1000 fine. The real key to the effectiveness of penalties of this type is the manner in which the courts apply them. And it is not impossible to make such a determination from these statutes themselves.

Under the designation of "unusual" soil conservation statutes are those which attempt to control soil erosion in a manner substantially different from those in the preceding discussion. The Kansas Shelter Belt Snow Fence Law[203] provides that any landowner who plants trees or shrubs adjacent to a public highway,in the manner specified by the law,to serve as a shelterbelt or windbreak for the purpose of preventing snow from drifting onto public highways will not have to pay any property tax on that portion of land which is occupied by the shelterbelt. This shelterbelt can also serve to prevent soil erosion on that portion of the farm.

A North Dakota statute[204] authorizes the State of North Dakota to enter into public works contracts with the Federal Government in order to relieve unemployment. The statute permits some of these public works to be done on private property if the purpose of the works is forest protection or flood control and if the State has a contract with the private landowner under which the private landowner may be required to practice specified cultural methods for the prevention of soil erosion.

A Honolulu ordinance[205] contains two provisions which can prevent soil erosion. One provision prohibits any use or structure in floodways or flood plains if such use or structure will increase erosion and the amounts of damaging materials which might be carried downstream in floods. The other provision requires that no structure with a few exceptions be placed within ten feet of the zone of wave action on any lot which is situated immediately adjacent to a sandy beach for the stated purpose of minimizing the erosion of such beaches.

SPECIAL POLLUTION CONTROLS

This section contains a group of miscellaneous statutes which control pollution in some manner, but which are limited in scope to one geographical area or one very narrow category of pollution. Nine states have special pollution controls.[206]

Three of the states surveyed, Massachusetts, Virginia and West Virginia, have enacted legislation which gives a state agency the authority to regulate activities on the state's waterways and to take action to preserve scenic waterways within the state.[207]

Eight of the states searched give state and/or municipal agencies special powers to protect watersheds and water supplies within their jurisdictions.[208] Four states have enacted legislation setting special geographical areas as sanctuaries or as reclamation areas.[209]

Massachusetts statute[210] says that conservation or preservation restrictions in a deed may be enforced by governmental bodies and charitable corporations. Such restrictions may limit construction, excavation and other activities which might change water conditions, and inhibit water conservation and soil erosion control. A Michigan statute[211] authorizes townships to appropriate money to control weeds, but forbids the use of poisons for such control unless approved by the Department of Conservation.

A Virginia statute[212] gives a riparian owner the right to impound water near his property if the circuit court or corporation court of the place where the impounding structure is to be built grants leave to do so. The court may not grant leave to impound water if that act will impair or make more difficult the reduction of pollution. Even if leave is granted, the court may make such conditions as it chooses.

The provisions of these twenty odd statutes are varied, and because of the narrow nature of the statutes will not be discussed individually. Specific provisions, considered noteworthy will be identified.

All of the authorized activities are to be supported, at least in part, by state or local revenues. Only the Indiana statute[213] and one of the New Jersey statutes[214] provides for the accessing of fees against benefited landowners.

Seven[215] statutes enable the enforcing agency to hold quasi-judicial hearings. Fifteen statutes[216] enable the enforcing agency to issue orders, promulgate rules and regulations and enforce such. Only three statutes[217] require that anyone who wishes to engage in activities that may cause water pollution must first obtain a license.

Nine[218] statutes empower the appropriate agency to obtain an injunction to enforce the statute. In an exception to the general rule, the Attorney General rather than the enforcing agency must obtain the injunction under the Massachusetts ocean sanctuaries statute.

Five[219] statutes allow the appropriate agency to condemn and purchase land through its power of eminent domain to enforce the statute. All but two[220] of the statutes prescribe various penalties for violations. Some penalties are criminal and some civil. The penalties include limit fines and imprisonment of ninety days or less, except that one of the New Jersey statutes[221] provides for an unspecified period of imprisonment following the second conviction within a six-month period.

WETLANDS PROTECTION

This group of statutes seeks to protect wetlands or estuaries and the powers granted are probably broad enough to permit control of some or all nonpoint sources of water pollution which may affect particular wetlands. These statutes differ from the coastal zone protection statutes in that coastal zone protection statutes usually protect both upland and wetlands in a well-defined coastal zone, while the wetlands protection statutes protect only wetlands. Three of the searched states have wetlands protection statutes. The Massachusetts statute[222] gives the Commissioner of Natural Resources the power to adopt orders regulating the "dredging, filling, removing or otherwise altering, or polluting of coastal wetlands,"[223] and in the event a court should nullify any such order, the Department of Natural Resources may take the affected land by eminent domain.[224] In addition, all areas under the control of the Metropolitan District Commission are exempt from this statute.[225]

The New Jersey statute[226] contains similar powers and exemptions as the Massachusetts statute. The Commissioner of Environmental Protection may adopt orders regulating the "[D]redging, filling, removing or otherwise altering, or polluting [of]) coastal wetlands"; however, the Commissioner may not impair the exercise of the powers and duties of the State Department of Environmental Protection, the Natural Resource Council, the State Department of Health, the State Mosquito Control Commission or any mosquito control or other project authorized by other state statutes.

The Virginia statute[227] which is significantly different from those of Massachusetts and New Jersey, permits any town, city or county to adopt the "Wetlands Zoning Ordinance"[228] set out in the statute, under which the locality shall establish a wetlands board which grants permits for certain uses of the local wetlands if these uses will not unreasonably disturb ecological systems. Some uses, such as agriculture and certain types of construction are permitted absolutely, while other uses[229] are subject to the permit procedure. All decisions of such boards are subject to review by the Marine Resources Commission, a state agency, which also has initial permit-granting power in areas where the prescribed ordinance has not been adopted.

Only the New Jersey statute specifically authorizes the enforcing agency to hire staff. The New Jersey and Virginia statutes, but not the Massachusetts statute, specifically provide for funding. All three statutes authorize hearings and appeals. The New Jersey and Virginia statutes, but not the Massachusetts statute, require permits for regulated activities. Only the New Jersey statute authorizes the enforcing agency to conduct research programs and administer environmental protection programs, although the latter power appears to be implied in the other two statutes.

All three statutes authorize the enforcing agency to obtain injunctions. Only the Massachusetts statute authorizes the enforcing agency to use the state's eminent domain power to enforce the statute. Only the New Jersey statute authorizes damage suits and civil fines. Anyone who violates any order of the Commissioner or any other provision of the New Jersey statute "shall be liable to the State for the cost of restoration of the affected wetland to its condition prior to such violation insofar as that is possible, and shall be punished by a fine of not more than $1,000." (This fine appears to be a civil fine under New Jersey law.)

The Massachusetts and Virginia[230] statutes, but not the New Jersey statute, also provide for criminal penalties. Anyone who violates any of the Commissioner's orders under the Massachusetts statute may be fined not less than $10 nor more than $50 or imprisoned for not more than one month or both. Anyone who violates any provision of the Virginia statute or local wetlands zoning ordinance may be fined not more than $1000 or imprisoned for not more than twelve months or both for each day's violation.

FOOTNOTES

GENERAL

[1] Ind. Ann. Stat. §§ 13-6-1-1 to 13-6-1-6 (1973).

[2] Id. at § 13-6-1-1.

[3] Mass. Gen. Laws Ann. ch. 30A, § 10A (Supp. 1974).

[4] Mich. Comp. Laws Ann. §§ 691.1201 to 691.1206 (Supp. 1973).

[5] Id. at § 691.1203.

[6] Minn. Stat. Ann. §§ 116B.01 to 116B.13 (Supp. 1975).

[7] Id. at § 116B.04.

[8] Wis. Stat. Ann. § 227.06 (Supp. 1974).

[9] Cal. Pub. Res. Code § 27000-27650 (Supp. 1975).

[10] Id. at § 27401.

[11] Hawaii Rev. Stat. § 205A-1 to 205A-3 (Supp. 1974).

[12] 16 U.S.C.A. § 1451 et seq. (1974).

[13] Mass. Gen. Laws Ann. ch. 130, §§ 23 to 27 (1974).

[14] Mich. Comp. Laws Ann. §§ 281.631-281.645 (Supp. 1973).

[15] Minn. Stat. Ann. §§ 105.485, 394.37, 462.362 (Supp. 1975).

[16] Id. at § 105.485.

[17] Tex. Rev. Civ. Stat. art. 5415e-1 (Vernon's Supp. 1974).

[18] Cal. Pub. Res. Code § 27000-27650 (Supp. 1975).

[19] Cal. Pub. Res. Code § 27425 (Supp. 1975); Mass. Gen. Laws Ann. ch. 130, § 26 (Supp. 1974); Mich. Comp. Laws Ann. § 281.641 (Supp. 1973); Minn. Stat. Ann. § 105.485(4) (Supp. 1975).

[20] Cal. Pub. Res. Code § 27426 (Supp. 1975).

[21] Tex. Rev. Civ. Stat. art. 5415e-1 (Vernon's Supp. 1974).

[22] Cal. Pub. Res. Code § 27427 (Supp. 1975).

[23] Hawaii Rev. Stat. § 205A-1 (Supp. 1974).

[25] Mass. Gen. Laws Ann. ch. 130, §§ 26, 27 (1974).

[25] Mich. Comp. Laws Ann. § 281.641 (Supp. 1973).

[26] Minn. Stat. Ann. §§ 394.37(3), 394.37(4) (1968).

[27] *Id.*

[28] *Id.*

[29] Mass. Gen. Laws Ann. ch. 130, § 27 (1974).

[30] Minn. Stat. Ann. § 394.37 (1968).

[31] Minn. Stat. Ann. §§ 116G.01-116G.14 (Supp. 1973).

[32] Va. Code Ann. §§ 10-187 to 10-196 (Supp. 1974).

[33] N.J. Stat. Ann. §§ 13:1H-1 to 13:1H-7 (Supp. 1974).

[34] Va. Code Ann. §§ 58-769.4 to 58-769.16 (1974), *as amended*, (Supp. 1974).

[35] Kan. Stat. Ann. §§ 12-734, 12-735 (Supp. 1974).

[36] Minn. Stat. Ann. §§ 104.01-104.07 (Supp. 1973).

[37] *Id.* at § 104.07

[38] *Id.*

[39] Kan. Stat. Ann. § 13-436 (1964); Mich. Comp. Laws Ann. §§ 41.181-41.183 (1967), *as amended*, (Supp. 1974); § 67.1 (1967).

[40] Kan. Stat. Ann. § 13-436 (1964).

[41] Mich. Comp. Laws Ann. § 41.181 (1967).

[42] Mich. Comp. Laws Ann. § 67.1 (1967).

[43] Hawaii Rev. Stat. § 103-61 (Supp. 1974).

[44] Ind. Ann. Stat. §§ 16-1-3-13, 16-1-3-27 (1973).

[45] Ind. Ann. Stat. §§ 16-1-26-1, 16-1-26-2 (1973).

[46] Ind. Ann. Stat. §§ 18-1-1.5-1 to 18-1-1.5-30 (1974).

[47] Ind. Ann. Stat. §§ 19-3-1.1-8, 19-3-1.1-10 (1974).

[48] Mass. Gen. Laws Ann. ch. 12, § 11D (Supp. 1974).

[49] Mass. Gen. Laws Ann. ch. 111, § 2c (Supp. 1974).

[50] Mich. Comp. Laws Ann. § 45.515(c) (1967).

[51] Mich. Comp. Laws Ann. § 91.1 (1967).

[52] Mich. Comp. Laws Ann. § 697.4 (1967).

[53] Minn. Stat. Ann. §§ 84B.01-84B.10 (Supp. 1973).

[54] Minn. Stat. Ann. § 117.49 (Supp. 1973).

[55] N.J. Stat. Ann. §§ 40:14-16 to 40:14-24 (Supp. 1974).

[56] Utah Code Ann. § 23-15-6 (Supp. 1973).

[57] Va. Code Ann. Constitution of Virginia, art. XI, §§ 1, 2 (1973).

[58] Va. Code Ann. § 10-178, 10-179 (1973).

[59] Va. Code Ann. §§ 615.1-505, 15.1-510, 15.1-510.2 (1973), *as amended*, (Supp. 1974).

[60] Va. Code Ann. §§ 15.1-854, 15.1-863, 15.1-901, 15.1-905 (1973).

[61] Va. Code Ann. § 62.1-194.1 (1973).

[62] Honolulu, Hawaii Charter §§ 7-101 to 7-119 (Supp. 1974).

[63] Washington Co., Ore., Ordin. No. 59 (1969), *as amended*, (1970, 1971, 1974).

[64] Washington Co., Ore., Ordin. No. 83 (1971).

[65] Washington Co., Ore., Ordin. No. 88 (1971).

[66] City of Bellevue, Wash., Proposed Drainage Code §§ 1-21 (1975).

[67] *Id.*

[68] Ind. Ann. Stat. § 18-1-1.5-2 (1974); § 19-3-1.1-8 (1974); Mass. Gen. Laws Ann. ch. 12, § 11D (Supp. 1974); N.J. Stat. Ann. § 40:14-22 (Supp. 1974); Va. Code Ann. §§ 15.1-505, 15.1-510, 15.1-510.2 (1973), *as amended*, (Supp. 1974); 15.1-854, 15.1-863, 15.1-901, 15.1-905 (1973); Honolulu Charter § 7-105 (Supp. 1974).

[69] Ind. Ann. Stat. §§ 18-1-1.5-4 (1974); Minn. Stat. Ann. § 84B.07-84B.09 (Supp. 1973); N.J. Stat. Ann. § 40:14-21 (Supp. 1974); Honolulu Charter § 7-105, 7-109 (Supp. 1974); Washington Co., Ore., Ordin. Nos. 59, 83, 88; City of Bellevue, Wash., Proposed Drainage Code § 1-21 (1975).

[70] Ind. Ann. Stat. § 18-1-1.5-4 (1974).

[71] Minn. Stat. Ann. § 84B.07-84B.09 (Supp. 1973).

[72] N.J. Stat. Ann. § 40:14-21 (Supp. 1974).

[73] Honolulu Charter § 7-105, 7-109 (Supp. 1974).

[74] Washington Co., Ore., Ordin. Nos. 59, 83, 88.

[75] City of Bellevue, Wash., Proposed Drainage Code §§ 1-21 (1975).

[76] Ind. Ann. Stat. §§ 16-1-3-21 (1974).

[77] Mich. Comp. Laws Ann. § 91.1, § 97.4 (1967).

[78] Va. Code Ann. §§ 15.1-504, 15.1-903 (Supp. 1974).

[79] Honolulu Charter § 7-110 (Supp. 1974); Washington Co., Ore., Ordin. Nos. 59, 83, 88; City of Bellevue, Wash., Proposed Drainage Code §§ 1-21 (1975).

[80] See f.n. 76.

[81] See f.n. 79.

[82] Ind. Ann. Stat. § 16-1-3-22 (1973), § 19-3-1.10 (1974); Mass. Gen. Laws Ann. ch. 111, § 2c (Supp. 1974); Utah Code Ann. § 23-15-6 (Supp. 1973); Va. Code Ann. §§ 15.1-510, 15.1-510.2, 15.1-854 (1973); Honolulu Charter § 7-105 (Supp. 1974); Washington Co., Ore., Nos. 59, 83, 88.

[83] Ind. Ann. Stat. § 16-1-26-2 (1973), §§ 18-1-1.5-5.5, 19-3-1.1-10 (1974); Mass. Gen. Laws Ann. ch. 12, § 11D (Supp. 1974); Va. Code Ann. §§ 15.1-905, 62.1-194.1 (1973); Washington Co., Ore., Ordin. Nos. 59, 88; City of Bellevue, Wash., Proposed Drainage Code § 1-21 (1975).

[84] Ind. Ann. Stat. § 16-1-26-2 (1973).

[85] Va. Code Ann. § 62.1-194.1 (1973).

[86] Ind. Ann. Stat. § 19-3-1.1-10 (1974).

[87] Mass. Gen. Laws Ann. ch. 12, § 11D (Supp. 1974).

[88] Ind. Ann. Stat. § 18-1-1.5-19 (1974); Mich. Comp. Laws Ann. §§ 01.1, 97.4 (1967); Utah Code Ann. § 25-15-6 (Supp. 1973); Va. Code Ann. §§ 15.1-505, 15.1-901; 62.1-194.1 (1973); Washington Co., Ore., Ordin. Nos. 59, 83, 88; City of Bellevue, Wash., Proposed Drainage Code § 1-21 (1975).

[89] Hawaii Rev. Stat. § 103-61 (Supp. 1974); Mich. Comp. Laws Ann. § 45.515c (1967); Minn. Stat. Ann. §§ 84B.1 to 84B.10, 117.49 (Supp. 1973); N.J. Stat. Ann. §§ 40:14-16 to 40:14-24 (Supp. 1974); Va. Code Ann. §§ 10-178, 10-179 (1973).

[90] Mich. Comp. Laws Ann. § 91.1 (1967).

[91] Mich. Comp. Laws Ann. § 45.515(c) (1967).

[92] Hawaii, Michigan, Minnesota, New Jersey, North Dakota, Virginia, West Virginia, Wisconsin, Lane County, Oregon and City of Bellevue, Washington.

[93] Lane Co., Ore., Code, ch. 9, §§ 9.700-9.995 (1973).

[94] City of Bellevue, Wash., Resolution No. 2007 (1972).

[95] Hawaii Rev. Stat. § 183-41 (Supp. 1974).

[96] Va. Code Ann. §§ 15.1-1400 to 15.1-1452 (1973), *as amended*, (Supp. 1974).

[97] Minn. Stat. Ann. §§ 394.21-394.37 (1968), *as amended*, (Supp. 1973), §§ 462.351-462.364 (Supp. 1973).

[98] N.J. Stat. Ann. §§ 40.55-1.1 to 40.55-1.29 (1967), *as amended*, (Supp. 1974).

[99] Va. Code Ann. §§ 15.1-486 to 15.1-503.2 (1973), *as amended*, (Supp. 1974).

[100] W.Va. Code Ann. §§ 8-24-1 to 8-24-38, 8-24-66 to 8-24-71 (1969), *as amended*, (Supp. 1974).

[101] Wis. Stat. Ann. §§ 59.97, 1971 (1957), *as amended*, (Supp. 1974), § 87.30 (1972).

[102] *See* f.n. 96.

[103] *See* f.n. 100.

[104] *See* f.n. 101

[105] *See* f.n. 93.

[106] *See* f.n. 94.

[107] *See* f.n. 95.

[108] *See* f.n. 97.

[109] *See* f.n. 100.

[110] Mich. Comp. Laws Ann. §§ 125.201-125.203, 125.271, 125.273, 125.277, 125.327 (1967); Minn. Stat. Ann. §§ 394.21-394.37 (1968), *as amended*, (Supp. 1973), §§ 462.351-462.364 (Supp. 1973); N.D. Cent. Code §§ 11-33-01 to 11-33-21 (1960), *as amended*, (Supp. 1973); Va. Code Ann. §§ 15.1-486 to 15.1-503.2 (1973), *as amended*, (1974); Lane County, Ore., Code, ch. 9, §§ 9.700-9.995 (1973).

[111] Minn. Stat. Ann. §§ 394.21-394.37 (1968), *as amended*, (Supp. 1973), §§ 462.351-462.364 (Supp. 1973); N.J. Stat. Ann. §§ 58:16A-50 to 58:16A-66 (Supp. 1974); N.D. Cent. Code §§ 11-33-01 to 11-33-21 (1960), *as amended*, (Supp. 1973); Va. Code Ann. §§ 15.1-486 to 15.1-503.2 (1973), *as amended*, (Supp. 1974); W.Va. Code Ann. §§ 8-24-1 to 8-24-38, 8-24-66 to 8-24-71 (1969), *as amended*, (Supp. 1974).

[112] *See* f.n. 97.

[113] *See* f.n. 99.

[114] *See* f.n. 97

[115] Minn. Stat. Ann. §§ 462.351-462.364 (Supp. 1973).

[116] *See* f.n. 97.

[117] Mich. Comp. Laws Ann. §§ 125.201-125.203, 12.271, 12.273, 12.277, 12.327 (1967).

[118] *See* f.n. 115.

[119] Michigan, Minnesota, North Dakota, Texas, Virginia, West Virginia, Washington County, Oregon.

[120] Mich. Comp. Laws Ann. §§ 66.2, 66.10, 67.20, §§ 89.2, 89.20, 90.12, 102.1, 102.11, 102.13, 102.14 (1967); Minn. Stat. Ann. §§ 412.221, 412.231, 412.863 (1958), *as amended*, (Supp. 1973); Tex. Rev. Civ. Stat. arts. 1015, 1146, 1175 (Vernon's 1963), *as amended*, (Vernon's Supp. 1974); Va. Code Ann. §§ 15.1-867, 15.1-901 to 15.1-907 (1973), *as amended*, (Supp. 1974).

[121] Minn. Stat. Ann. §§ 609.031-609.032, 609.74-609.75 (Supp. 1973).

[122] N.D. Cent. Code §§ 42-01-01 to 42-01-11 (1968).

[123] W.Va. Code Ann. §§ 8-21-1 to 8-21-14 (1969).

[124] Mich. Comp. Laws Ann. §§ 66.2, 66.10, 67.20, 89.2, 89.20, 90.12, 102.1, 102.611, 102.13, 102.14 (1967).

[125] Minn. Stat. Ann. §§ 412.221, 412.231, 412.863 (1958), *as amended*, (Supp. 1973).

[126] Va. Code Ann. §§ 15.1-867, 15.1-901 to 15.1-907 (1973), *as amended*, (Supp. 1973).

[127] *See* f.n. 123.

[128] *See* f.n. 122.

[129] *See* f.n. 126

[130] Mich. Comp. Laws Ann. §§ 66.2, 66.10, 67.20 (1967).

[131] *See* f.n. 121.

[132] *See* f.n. 130.

[133] *See* f.n. 121.

[134] Mich. Comp. Laws Ann. §§ 89.2, 89.20, 90.12, 102.1, 102.11, 102.13-102.14 (1967).

[135] See f.n. 134.

[136] Massachusetts, Michigan, Minnesota, New Jersey, Texas, Utah, Virginia West Virginia, Wisconsin.

[137] Mass. Gen. Laws Ann. ch. 85, 636 (Supp. 1974); Mich. Comp. Laws Ann. § 257.1-257.923 (1967); N.J. Stat. Ann. §§ 39:4-77, 39:5-1 to 39:5-47 (1973); Utah Code Ann. §§ 27-12-8, 27-12-146, 27-12-147 (1969), as amended, (Supp. 1973); W.Va. Code Ann. § 17C-2-3, 17C-17-6, 17C-18-1 (1974); Wis. Stat. Ann. §§ 346.97-346.95, 348.10-348.11 (1971), as amended, (Supp. 1974).

[138] Minn. Stat. Ann. §§ 169.80-169.89 (1960), as amended, (Supp. 1973).

[139] N.J. Stat. Ann. §§ 27:1-1 to 27:1-20, 27:7-44 (1966).

[140] N.J. Stat. Ann. §§ 39:4-77, 39:5-1 to 39:5-47 (1973).

[141] Tex. Water Code Ann. §§ 24.001-24.046 (Vernon's 1972).

[142] Va. Code Ann. § 33.1-350 (1970).

[143] Va. Code Ann. §§ 46.1-16, 46.1-343 (1974).

[144] Minn. Stat. Ann. §§ 169.80-169.89 (1960), as amended, (Supp. 1973); Utah Code Ann. §§ 27-12-8, 27-12-128, 27-12-147 (1969), as amended, (Supp. 1973); N.J. Stat. Ann. §§ 27:1-1 to 27:1-20, 27:7-44 (1966), §§ 39:4-77, 39:5-1 to 39:5-47 (1973); Wis. Stat. Ann. §§ 346.87-346.95, 348.10-348.11 (1971), as amended, (Supp. 1974).

[145] Mich. Comp. Laws Ann. §§ 257.1-923 (1967); Minn. Stat. Ann. § 169.80-169.89 (1960), as amended, (Supp. 1973); N.J. Stat. Ann. §§ 39:4-77, 39:5-1 to 39:5-4 (1973); Tex. Water Code Ann. §§ 24.001-24.046 (Vernon's 1972); Va. Code Ann. § 33.1-350 (1970), §§ 46.1-16, 46.1-343 (1974); W.Va. Code Ann. §§ 17C-2-3, 17C-17-6, 17C-18-1 (1974).

[146] Massachusetts and Minnesota.

[147] Mass. Gen. Laws Ann. ch. 85, §§ 5, 7A (1958), as amended, (Supp. 1974).

[148] Mass. Gen. Laws Ann. ch. 161, §§ 85, 142 (1958).

[149] Minn. Stat. Ann. § 160.215 (Supp. 1974).

[150] Hawaii, Michigan, Minnesota, Texas, Utah, Montgomery County, Maryland. and City of Bellevue, Washington.

[151] California, Hawaii, Indiana, Kansas, Michigan, Minnesota, New Jersey, North Dakota, Texas, Utah, Virginia, West Virginia, and Wisconsin.

[152] Kansas and Texas.

[153] Kansas, North Dakota, and Honolulu, Hawaii.

[154] Hawaii Rev. Stat. §§ 180C-1 to 180C-4 (Supp. 1974).

[155] *Id.* at § 180C-2.

[156] Mich. Comp. Laws Ann. §§ 282.101-282.117 (Supp. 1974).

[157] *Id.*

[158] *Id.*

[159] *Id.*

[160] Minn. Stat. Ann. § 106.671-106.673 (1964), *as amended*, (Supp. 1973).

[161] Tex. Rev. Civ. Code art. 2372C (Vernon's 1971).

[162] Utah Code Ann. §§ 65-1-75, 65-1-82 (1968).

[163] Montgomery Co., Md., Code 1972, §§ 19-1 to 19-20 (1972).

[164] City of Bellevue, Wash., Resolution No. 2422 (1974).

[165] California, Indiana, Kansas, Massachusetts, Michigan, Minnesota, New Jersey, North Dakota, Pennsylvania, Texas, Utah, Virginia, West Virginia, and Wisconsin, Montgomery County, Maryland and Bellevue, Washington.

[166] Minn. Stat. Ann. § 40.005 (Supp. 1973).

[167] Mich. Comp. Laws Ann. §§ 282.101-282.117 (1967), *as amended*, (West Supp. 1973); N.J. Stat. Ann. § 4:24-23 (1973); N.D. Cent. Code § 4-22-27 (1959), *as amended*, (Supp. 1973); Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969), *as amended*, (Supp. 1974); Utah Code Ann. § 62-1-9 (1968); Va. Code Ann. § 21-66 (1960), *as amended*, (Supp. 1974); W.Va. Code Ann. § 19-21A-9 (1971); Wis. Stat. Ann. § 92.09 (1972), *as amended*, (Supp. 1974).

[168] Wis. Stat. Ann. § 92.09 (1972), *as amended*, (Supp. 1974).

[169] N.J. Stat. Ann. § 4:24-27 (1973); N.D. Cent. Code § 4-22-34 (1959); Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969), *as amended*, (Supp. 1974); Utah Code Ann. § 62-1-11 (1968); Va. Code Ann. § 21-83 (1960), *as amended*, (Supp. 1974); W.Va. Code Ann. § 19-21A-10 (1971).

[170] Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969), *as amended*, (Supp. 1974).

[171] Mich. Comp. Laws Ann. §§ 282.101-282.117 (Supp. 1974).

[172] *Id.* at § 282.113 (Supp. 1974).

[173] Kan. Stat. Ann. §§ 2-2001 to 2-2011 (1964), *as amended*, (Supp. 1974).

[174] Tex. Rev. Civ. Stat. art. 165A-2, 165A-3 (Vernon's 1969).

[175] Pa. Stat. Ann. tit. 35, §§ 691.1-691.1001 (1964), *as amended*, (Supp. 1974).

[176] Soil Erosion and Sedimentation Control Manual, (1975: Pennsylvania Department of Environmental Resources).

[177] *Id*.

[178] Pa. Rules and Regs., tit. 25, § 102.61 (1972).

[179] Tex. Rev. Civ. Stat. art. 165A-4, 165A-2 (Vernon's 1969).

[180] Mass. Gen. Laws ch. 21, § 24(7) (1973); N.J. Stat. Ann. § 4:24-6 (1973); N.D. Cent. Code § 4-22-06 (1959); Va. Code Ann. § 21-62 (Supp. 1974); W.Va. Code Ann. § 19-21A-8 (1971).

[181] Cal. Pub. Res. Code § 9026 (West 1956).

[182] Minn. Stat. Ann. § 40.072 (Supp. 1975).

[183] Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969).

[184] Tex. Rev. Civ. Stat. art. 165A-2 (Vernon's 1969).

[185] Kan. Stat. Ann. § 2-1907b (Supp. 1974).

[186] Ind. Ann. Stat. § 13-3-1-11 (1973); Mich. Comp. Laws Ann. § 282.16 (1963); Wis. Stat. Ann. § 92.20 (1972).

[187] California, Indiana, Kansas, Massachusetts, Minnesota, Pennsylvania.

[188] Pa. Stat. Ann. tit. 3, §§ 849-864 (1963), *as amended*, (Supp. 1973).

[189] *See* f.n. 11.

[190] Michigan, New Jersey, North Dakota, Texas, Utah, Virginia, West Virginia, and Wisconsin.

[191] *See* f.n. 7.

[192] N.D. Cent. Code § 4-22-34 (1959); Tex. Rev. Civ. Stat. art. 165A-4 (Vernon's 1969); Va. Code Ann. § 21-83 (1960), *as amended*, (Supp. 1974); W.Va. Code Ann. § 19-21A-10 (1971).

[193] Mich. Comp. Laws Ann. § 282.641 (1963); Wis. Stat. Ann. § 92.10 (1972).

[194] Pa. Stat. Ann. tit. 35, § 691.503 (1964).

[195] Wis. Stat. Ann. § 92.10 (1972), *as amended*, (Supp. 1974).

[196] N.J. Stat. Ann. § 4:24-27 (1973); Utah Code Ann. § 62-1-11 (1968).

[197] Michigan, Utah and Wisconsin.

[198] Utah Code Ann. § 72-1-11 (1968).

[199] Mich. Comp. Laws Ann. § 92.11 (1972).

[200] Pa. Stat. Ann. § 691.602 (Supp. 1973).

[201] *Id.*

[202] *Id.*

[203] Kan. Stat. Ann. §§ 29-500 to 29-508 (1973).

[204] N.D. Cent. Code §§ 50-17-01 to 50-17-09 (1974).

[205] Revised Ordinances of Honolulu, Hawaii §§ 21-1104, 21-1301 (1970), as amended, (Supp. 1973).

[206] Indiana, Massachusetts, Michigan, Minnesota, New Jersey, North Dakota, Utah, Virginia, and West Virginia.

[207] Mass. Gen. Laws Ann. ch. 21, § 17B (Supp. 1974); Va. Code Ann. §§ 10-167 to 10-176 (1973); W.Va. Code Ann. §§ 20-5B-1 to 20.5B-17 (1973).

[208] Ind. Ann. Stat. §§ 18-1-8-1 and 18-1-8-2 (1971); Mass. Gen. Laws Ann. ch. 40, § 8C (Supp. 1974); Mich. Comp. Laws Ann. §§ 455.58, 455.63, 455.212, 455.214 (1967); Minn. Stat. Ann. §§ 112.34-112.86 (1964), *as amended*, (Supp. 1973); N.J. Stat. Ann. §§ 26:3-1 to 26:3-82 (1964), *as amended*, (Supp. 1974); N.D. Cent. Code §§ 11-28-01 to 11-28-11, 40-05-01, 40-05-06, 61-16-01 to 61-16-49 (1968), *as amended*, (Supp. 1973); Utah Code Ann. §§ 10-7-75, 10-8-1 to 10-8-7, 10-8-15, 10-8-84 (1973); Va. Code Ann. §§ 15.1-292, 15.1-841, 15.1-843, 15.1-901, 15.1-903, 15.1-905 (1973), *as amended*, (Supp. 1974).

[209] Mass. Gen. Laws Ann. ch. 132A, §§ 1-16 (1974); N.J. Stat. Ann. §§ 13:17-1 to 13:17-86, 13:18-1, to 13-18-21 (Supp. 1974); Utah Code Ann. §§ 63-11-13, 63-11-17 to 63-11-17.3, 63-11-21, 63-11-21.1 (1968), *as amended*, (Supp. 1973); Va. Code Ann. § 29-153 (1973).

[210] Mass. Gen. Laws Ann. ch. 184, §§ 31-33 (Supp. 1974).

[211] Mich. Comp. Laws Ann. §§ 41.671-41.673 (1967).

[212] Va. Code Ann. §§ 62.1-104 to 62.1-115 (1973).

[213] Ind. Ann. Stat. § 18-1-8-2 (1971).

[214] N.J. Stat. Ann. §§ 13:17-1 to 13:17-86 (Supp. 1974).

[215] Mass. Gen. Laws Ann. ch. 21, § 17B (Supp. 1974); Minn. Stat. Ann. §§ 112.34-112.86 (1964), *as amended*, (Supp. 1973); N.J. Stat. Ann. §§ 13:17-1 to 13:17-86 (Supp. 1974), 26:3-1 to 26:3-82 (1964), *as amended*, (Supp. 1974);

N.D. Cent. Code §§ 61-16-01 to 61-16-49 (1968), *as amended*, (Supp. 1973); Va. Code Ann. §§ 10-167 to 10-176, 62.1-104 to 62.1-115 (1973).

[216] Ind. Ann. Stat. § 18-1-8-2 (1971); Mass. Gen. Laws Ann. ch. 21, § 17B, ch. 40, § 8C, ch. 132A, §§ 1-16 (Supp. 1974); Mich. Comp. Laws Ann. §§ 455.58, 455.63, 455.212, 455.214 (1967); Minn. Stat. Ann. §§ 112.34-112.86 (1964), *as amended*, (Supp. 1973); N.J. Stat. Ann. §§ 13:17-1 to 13:17-86, 13:18-1 to 13:18-21 (Supp. 1974), §§ 26:3-1 to 26:3-82 (1964), *as amended*, (Supp. 1974); N.D. Cent. Code §§ 11-28-01 to 11-28-11, 40-05-01, 40-05-06, 61-16-01 to 61-16-49 (1968), *as amended*, (Supp. 1973); Utah Code Ann. §§ 10-8-1, 10-7-15 (1973), 63-11-13, 63-11-17 to 63-11-17.3, 63-11-21 to 63-11-21.1 (1968), *as amended*, (Supp. 1973); W.Va. Code Ann. §§ 20-5B-1 to 20-5B-17 (1973).

[217] N.J. Stat. Ann. §§ 13:17-1 to 13:17-86 (Supp. 1974), 26:3-1 to 26:3-82 (1964), *as amended*, (Supp. 1974); W.Va. Code Ann. §§ 20-5B-1 to 20-5B-17 (1973).

[218] Ind. Stat. Ann. §§ 18-1-8-1 to 18-1-8-2 (1971); Mass. Gen. Laws Ann. ch. 21, § 17B; ch. 132A, § 1-16; ch. 184, §§ 31-33 (Supp. 1974); N.J. Stat. Ann. § 13:17-1 to 13:17-86, 13:18-1 to 13:18-21 (Supp. 1974); Va. Code Ann. §§ 15.1-292, 15.1-841, 15.1-843, 15.1-901, 15.1-903, 15.1-905 (1973); *as amended*, (Supp. 1974); W.Va. Code Ann. §§ 20-5B-1 to 20-5B-17 (1973).

[219] Ind. Stat. Ann. §§ 18-1-8-1 to 18-1-8-2 (1971); Mass. Gen. Laws Ann. ch. 21, § 17B; ch. 40, § 8C; ch. 132A, §§ 1-16, (Supp. 1974); N.D. §§ 61-16-01 to 61-16-49 (1968), *as amended*, (Supp. 1973).

[220] Mich. Comp. Laws Ann. §§ 41.671-41.673 (1967); Va. Code Ann. §§ 10-167 to 10-176 (1973).

[221] N.J. Stat. Ann. §§ 26:3-1 to 26:3-82 (1964), *as amended*, (Supp. 1973).

[222] Mass. Gen. Laws Ann. ch. 130, § 105 (1974).

[223] *Id.*

[224] *Id.*

[225] *Id.*

[226] N.J. Stat. Ann. §§ 13.1B-1, 13.1B-3, 13:1D-1 to 13:1-19, 13:9A-1 to 13:9A-10 (1968), as amended, (Supp. 1974).

[227] Va. Code Ann. §§ 62.1-13.1 to 62.1-13.20 (1973), as amended, (Supp. 1974).

[228] *Id.* § 62.1-13.5 (Supp. 1974).

[229] *Id.* § 62.1-13.9 (Supp. 1974).

[230] *See* f.n. 222 and 227.

Appendix A

Selected Provisions from Water Pollution Control Statutes

Ala. Code tit. 22 (Supp. 1973)

§ 140(12a). Statement of policy and purpose.—Whereas the p lution of the waters of this state constitutes a menace to public health a welfare, creates public nuisances, is harmful to wildlife, fish and aquatic and impairs domestic, agricultural, industrial, recreational and other legiti beneficial uses of water, it is hereby declared to be the public policy of t state and the purpose of this chapter to conserve the waters of the state and to protect, maintain and improve the quality thereof for public water supplies for the propagation of wildlife, fish and aquatic life, and for domestic, agricultural, industrial, recreational and other legitimate beneficial uses; to provide for the prevention, abatement and control of new or existing water pollution; and to cooperate with other agencies of the state, agencies of other states and the federal government in carrying out these objectives. (1971, No. 1260, p. 2176, § 1, effective Nov. 21, 1971.)

§ 140(12b). Definitions.—When used in this act the terms defined shall have the meanings here ascribed to them unless it clearly appears from the context that some other meaning is indicated.

"Commission" means the water improvement commission; and "member" means a member of said Commission.

"Waters" means all waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state.

"Pollution" means such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the state, including, but not limited to, any violation of water quality standards, change in temperature, taste, color, turbidity, or odor of the waters, by the discharge of any sewage, industrial wastes, or other wastes, or of any liquid, gaseous, solid, or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.

"Sewage" means water-carried human wastes from residences, buildings, industrial establishments or other places including, but not limited to, any vessels, or other conveyances traveling or using the waters of this state, together with such ground, surface, storm or other waters as may be present.

"Industrial wastes" means liquid or other wastes resulting from any process of industry, manufacture, trade or business or from the development of natural resources.

"Other wastes" means all other substances, whether liquid, gaseous or solid from all other sources including, but not limited to, any vessels, or other conveyances traveling or using the waters of this state, except industrial wastes or sewage, which may cause pollution of any waters of the state.

"Person" means any and all persons, natural or artificial, including any individual, firm or association and any municipal, public or private corporation organized or existing under the laws of this or any other state or county. (1971, No. 1260, p. 2176, § 2, effective Nov. 21, 1971.)

§ 140(12d) Powers and duties of commission; enforcement of orders; permits; violations. —It shall be the duty of the commission to control pollution in the waters of the state and it shall specifically have the following powers:

* * *

(j) (1) It shall be the duty of the commission to issue, modify or revoke orders (a) prohibiting or abating discharges of sewage, industrial wastes or other wastes into the waters of the state; and (b) requiring the construction of new disposal systems or any parts thereof or the modification, extension or alteration of existing disposal systems or any parts thereof, or the adoption of other remedial measures to prevent, control or abate pollution.

(2) It shall be the duty of the commission to issue, continue in effect, revoke, modify or deny, under such conditions as it may prescribe, to prevent, control, or abate pollution, permits for the discharge of sewage, industrial wastes or other wastes into the waters of the state and for the installation, modification or operation of disposal systems or any parts thereof.

(3) Every person who, prior to the effective date of this chapter, is discharging any sewage, industrial wastes or other wastes into any waters of this state under a permit of the then existing water improvement commission may continue to do so under said permit unless and until the commission modifies or alters the terms of the permit.

(4) Every person who, prior to the effective date of this chapter, is proceeding to comply with a plan toward control of the pollution for which the plan was developed under a permit of the then existing water improvement commission must do so within the time limit specified by said plan and/or permit.

(5) Every person, who, prior to the effective date of this chapter is discharging any pollution into any waters of this state without a permit covering such discharge shall, in accordance with the terms of this chapter, apply in writing, within 30 days of the effective date of this chapter, for a permit and obtain a permit as a condition of continuing such discharge. Said permit shall be granted upon the submission to and approval by the commission of a plan to control such discharge within two years from date of application.

(6) Every person who, subsequent to the effective date of this chapter, wishes to begin discharging any new or increased pollution into any waters of this state shall apply to the commission in writing for a permit and must obtain such permit before discharging such pollution.

(7) Any and all pollution is hereby declared to be a public nuisance and shall be subject to immediate control of the commission by order or injunction if it creates, or is about to create, a health hazard. Any order issued under this paragraph shall be deemed to be final and conclusive for the purposes of this chapter.

* * *

Alas. Stat. (1971), as amended, (Supp. 1974)

Sec. 46.03.050. Authority. The department has jurisdiction to prevent and abate the pollution of the waters of the state. (§ 3 ch 120 SLA 1971)

Sec. 46.03.060. Water pollution control plan. The department shall develop comprehensive plans for water pollution control in the state and conduct investigations it considers advisable and necessary for the discharge of its duties. (§ 3 ch 120 SLA 1971)

Sec. 46.03.710. Pollution prohibited. No person may pollute or add to the pollution of the air, land, subsurface land or water of the state. (§ 3 ch 120 SLA 1971)

Sec. 46.03.760. Pollution penalties. (a) A person who violates §§ 710, 730, 740, or 750 of this chapter is guilty of a misdemeanor and upon conviction is punishable by a fine of not more than $25,000, or by imprisonment for not more than one year, or by both. Each unlawful act constitutes a separate offense.

Sec. 46.03.780. Liability for restoration. (a) A person who violates a provision of this chapter, or who fails to perform a duty imposed by this chapter, or violates or disregards an order, permit, or other determination of the department made under the provisions of this chapter, and thereby causes the death of fish, animals, or vegetation or otherwise injures or degrades the environment of the state is liable to the state for damages.

(b) Liability for damages under (a) of this section includes an amount equal to the sum of money required to restock injured land or waters, to replenish a damaged or degraded resource, or to otherwise restore the environment of the state to its condition before the injury.

(c) Damages under (a) of this section shall be recovered by the attorney general on behalf of the state. (§ 3 ch 120 SLA 1971)

Sec. 46.03.790. Wilful violation. (a) A person found guilty of wilfully violating a provision of this chapter, or a regulation, written order or directive of the department or of a court made under this chapter is guilty of a misdemeanor, and upon conviction shall be punished by a fine of not more than $1,000 and costs of prosecution, or by imprisonment for not more than one year, or by both such fine, cost, and imprisonment at the discretion of the court.

(b) Each day upon which a wilful violation of the provisions of this chapter occurs may be considered a separate and additional violation. (§ 3 ch 120 SLA 1971)

Sec. 46.03.800. Water nuisances. (a) A person is guilty of creating or maintaining a nuisance if he puts a dead animal carcass, or part of one, excrement, or a putrid, nauseous, noisome, decaying, deleterious, or offensive substance into, or in any other manner befouls, pollutes, or impairs the quality of, a spring, brook, creek, branch, well, or pond of water which is or may be used for domestic purposes.

(b) A person who neglects or refuses to abate the nuisance upon order of the department is guilty of a misdemeanor and is punishable as provided in § 790 of this chapter. In addition to this punishment, the court shall assess damages against the defendant for the expenses of abating the nuisance. (§ 3 ch 120 SLA 1971)

82-1902. Definitions.—SUBDIVISION 1. The following words and phrases when used in this Act [§§ 82-1901—82-1909], unless the context clearly indicates otherwise, shall have the meanings ascribed to them in this section.

SUBDIVISION 2. [SEWAGE.] "Sewage" means the water-carried waste products from residences, public buildings, institutions or other buildings, including the excrementitious or other discharge from the bodies of human beings or animals, together with such ground water infiltration and surface water as may be present.

SUBDIVISION 3. [INDUSTRIAL WASTE.] "Industrial waste" means any liquid, gaseous or solid waste substance resulting from any process of industry, mining, manufacturing, trade or business or from the development of any natural resources.

SUBDIVISION 4. [OTHER WASTES.] "Other wastes" means garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, sand, ashes, offal, oil, tar chemicals and all other substances organic or inorganic, not sewage or industrial waste which may pollute or tend to pollute the waters of the State.

SUBDIVISION 5. [POLLUTION.] "Pollution" means such contamination or other alteration of the physical, chemical or biological properties or [of] any waters of the State, or such discharge of any liquid, gaseous or solid substance in any waters of the State as will or is likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.

SUBDIVISION 6. [SEWER SYSTEM.] "Sewer System" means pipe lines or conduits, pumping stations, and force mains, and all other constructions, devices, and appliances appurtenant thereto, used for conducting sewage or industrial waste or other wastes to a point of disposal.

SUBDIVISION 7. [TREATMENT WORKS.] "Treatment Works" means any plant, disposal field, lagoon, dam, pumping station, constructed drainage ditch or surface water intercepting ditch, incinerator, area devoted to sanitary land fills, or other works not specifically mentioned herein, installed for the purpose of treating, stabilizing or disposing of sewage, industrial waste, or other wastes.

SUBDIVISION 8. [DISPOSAL SYSTEM.] "Disposal System" means a system for disposing of sewage, industrial waste and other wastes, and includes sewer systems and treatment works

* * *

82-1904. Powers and duties of commission.—SUBDIVISION 1. The Commission is hereby given and charged with the following powers and duties:

* * *

SUBDIVISION 4. [STANDARDS.] To establish and alter such reasonable pollution standards for any waters of the State in relation to the use to which they are or may be put as it shall deem necessary for the purpose of this Act [§§ 82-1901—82-1909];

* * * *

SUBDIVISION 8. [PERMITS.] To issue, continue in effect, revoke, modify or deny, under such conditions as it may prescribe, to prevent, control or abate pollution, permits for the discharge of sewage, industrial waste or other wastes into the waters of the State, and for the installation, modification or operation of disposal systems or any parts thereof.

SUBDIVISION 9. [REVOCATION OR MODIFICATION OF PERMITS.] To revoke or modify any permit issued under this Act whenever it is necessary, in the opinion of the Commission, for the purpose of preventing or abating pollution of any waters of the State;

SUBDIVISION 10. [RULES AND REGULATIONS.] To adopt, after notice and public hearing, modify, repeal, promulgate and enforce rules and regulations implementing or effectuating the powers and duties of the Department and the Commission under this Act. Without limiting the generality of this authority, such rules and regulations may, among other things, prescribe (a) effluent standards specifying the maximum amounts or concentrations, and the physical, thermal, chemical, biological, and radioactive nature of the contaminants that may be discharged into the waters of the State or into publicly owned treatment facilities; (b) requirements and standards for equipment and procedures for monitoring contaminant discharges at their sources (including publicly owned treatment facilities and industrial discharges into such facilities), the collection of samples and the collection, reporting and retention of data resulting from such monitoring; and (c) water quality standards, performance standards, and pre-treatment standards.

82-1909. Violation of law a misdemeanor—Civil action to restrain violation—Civil penalty.—(a) Any person who violates any provision of this Act [§§ 82-1901—82-1909, 82-1931—82-1943] or commits any unlawful act thereunder shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year, or a fine of not more than five thousand dollars ($5,000.00) or by both such fine and imprisonment. Each day or part of a day during which such violation is continued or repeated shall constitute a separate offense.

(b) The Department is authorized to institute a civil action in any court of competent jurisdiction to restrain any violation of, and to compel compliance with, the provisions of this Act and of any rules, regulations, orders, or permits issued pursuant thereto, to require the taking of such remedial measures as may be necessary or appropriate to implement or effectuate the provisions and purposes of this Act, and/or to recover civil penalties, costs, and damages as herein provided. The fact that any such violation may constitute a misdemeanor shall not be a bar to the maintenance of such civil action.

(c) **Any person who violates any provision of this Act or commits any unlawful act thereunder shall be subject to a civil penalty in such amount as the court shall find appropriate, not to exceed five thousand dollars ($5,000.00) per day of such violation, to the payment of any expenses reasonably incurred by the State in removing, correcting, or terminating any adverse effects upon water quality resulting therefrom, including the costs of the investigation, inspection, or survey establishing such violation or unlawful act, and the payment to the** state of reasonable compensation for any loss or destruction of wildlife, fish, or aquatic life, or for any other actual damage resulting therefrom. [Acts 1949, No. 472, [Part 1], § 9, p. 1324; 1973, No. 262, § 10, p. —.]

Ariz. Rev. Stat. Ann. (1974)

§ 36-1851. **Definitions**

In this chapter, unless the context otherwise provides:

1. "Council" means the water quality control council established by this chapter.

2. "Department" means the department of health services, which for the purposes of this article includes the council.

* * *

6. "Permit" means a certificate or letter issued by the department stating the conditions and restrictions governing the discharge of a pollutant into any waters of the state.

7. "Person" means the state or any agency or institution thereof, any municipality, political subdivision, public or private corporation, individual, partnership, association, or other entity, and includes any officer or governing or managing body of any municipality, political subdivision, or public or private corporation.

8. "Pollution" means such contamination, or other alteration of the physical chemical, or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is likely to create a public nuisance or render such waters harmful, detrimental, or injurious to public health, safety, or welfare, or to domestic, agricultural, commercial, industrial, recreational, or other beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.

9. "Sewerage system" means pipelines or conduits, pumping stations, and force mains, and all other structures, devices, appurtenances, and facilities used for collecting or conducting wastes to an ultimate point for treatment or disposal.

10. "Treatment works" means any plant or other works used for the purpose of treating, stabilizing, or holding wastes.

11. "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive, or other substance which may pollute or tend to pollute any waters of the state. The term "wastes" does not include agricultural irrigation and drainage waters for which water quality standards shall have been established pursuant to this article.

* * *

§ 36-1864. Injunctive relief; appeal; violation; penalty

A. Whenever in the opinion of the department, after proper notice and hearing, any person is engaging, continues to engage, or threatens to engage in any act or practice which constitutes or will constitute a violation of any order of the council or director, the department shall make application, through the attorney general, to the superior court for an order enjoining such act or practice. The superior court after notice, as prescribed by the court, to the parties in interest shall then proceed to hear the matter and if it finds that the order was lawful and reasonable, it may issue an injunction or a restraining order in accordance with the Arizona rules of civil procedure and laws relating thereto. In any action for injunction or restraining order brought pursuant to this section, any finding of the council or director shall be prima facie evidence of the fact or facts found therein. An appeal or a special writ may be taken from any such order of the court in the same manner as is provided in civil cases.

B. Whenever the department shall determine, after investigation, that any person is discharging or causing to be discharged into the waters of the state directly or indirectly any wastes which in the opinion of the department constitutes a clear, present, and immediate danger to the health of the public, the department shall issue its written order to such person that he must immediately discontinue the discharge of such wastes into the waters of the state, and whereupon such person shall immediately discontinue such discharge. If such person, notwithstanding such order, continues the discharge of such wastes into the waters of the state, the department shall make application, through the attorney general, to the superior court of this state for the county in which the discharge is occurring for a temporary restraining order, preliminary injunction or permanent injunction as provided in the Arizona rules of civil procedure. Such action in such superior court shall be given precedence over all other matters pending in such court. An appeal or a special writ may be taken from any such order of the court in the same manner as is provided in civil cases.

C. Any person who is denied a permit by the department or who has such permit revoked or modified shall be afforded an opportunity for a fair hearing as provided in subsection B of this section in connection therewith upon written application to the director within thirty days after receipt of notice from the director of such denial, revocation or modification. On the basis of such hearing the director shall affirm, modify or revoke the determination made by the department.

D. The hearing officer or any other employee of the department designated by the council or director for that purpose, in connection with any hearing, shall:

1. Issue subpoenas requiring the attendance and testimony of witnesses whose testimony is material.

2. Issue subpoenas requiring the production of documentary or other tangible evidence at any designated place of hearing, upon written application by any party, which shall include a showing of the general relevance, materiality and reasonable particularity of the documentary or other tangible evidence desired and the facts to be proved by them.

§ 36-1857. Water quality standards

A. The council, in addition to other powers and duties enumerated in § 36-1854, shall adopt, promulgate, modify and amend reasonable standards of quality of the waters of the state for the prevention, control and abatement of pollution. It is recognized that due to variable factors no single standard of quality or the amount or degree of pollutants that is permitted to be discharged into the waters of the state is applicable to all streams or to different segments of the same waters or to different discharges into waters. In the fixing of such standards the council shall give consideration to, but not be limited to the following:

1. The criteria established by the federal water pollution control act, as amended, including the water quality act of 1965.

B. In administering this article, including the adoption, promulgation, amendment and modification of standards of quality, the council shall:

1. Not require any present or future appropriator or user of water to divert, cease diverting, exchange, cease exchanging, store, cease storing, or release any water for the purpose of controlling pollution in the waters of the state.

2. Exclude from water quality standards wholly private waters closed to all public uses and not discharging into or polluting any other waters of the state.

§ 36-1858. Prohibitions

It shall be unlawful for any person:

1. To cause pollution of any waters of the state or to place or cause any wastes to be placed in a location where they are likely to cause pollution of any waters of the state.

2. To discharge any wastes into any waters of the state which reduce the quality of such waters below the water quality standards established therefor by the council. Any such action is declared to be a public nuisance.

3. To discharge any irrigation and drainage waters into any waters of the state which reduce the quality of such waters below the water quality standards established therefor by the council.

Cal. Water Code (1970), as amended, (Supp. 1974).

§ 13000. Conservation, control, and utilization of water resources; quality; statewide program; regional administration

The Legislature finds and declares that the people of the state have a primary interest in the conservation, control, and utilization of the water resources of the state, and that the quality of all the waters of the state shall be protected for use and enjoyment by the people of the state.

The Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.

The Legislature further finds and declares that the health, safety and welfare of the people of the state requires that there be a statewide program for the control of the quality of all the waters of the state; that the state must be prepared to exercise its full power and jurisdiction to protect the quality of waters in the state from degradation originating inside or outside the boundaries of the state; that the waters of the state are increasingly influenced by interbasin water development projects and other statewide considerations; that factors of precipitation, topography, population, recreation, agriculture, industry and economic development vary from region to region within the state; and that the statewide program for water quality control can be most effectively administered regionally, within a framework of statewide coordination and policy.

§ 13050. Definitions

As used in this division:

(a) "State board" means the State Water Resources Control Board.

(b) "Regional board" means any California regional water quality control board for a region as specified in Section 13200.

(c) "Person" also includes any city, county, district, the state or any department or agency thereof. "Person" includes the United States, to the extent authorized by federal law.

(d) "Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature, including such waste placed within containers of whatever nature prior to, and for purposes of, disposal.

(e) "Waters of the state" means any water, surface or underground, including saline waters, within the boundaries of the state.

(f) "Beneficial uses" of the waters of the state that may be protected against quality degradation include, but are not necessarily limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

(g) "Quality of the water" or "quality of the waters" refers to chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its use.

(h) "Water quality objectives" means the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

(i) "Water quality control" means the regulation of any activity or factor which may affect the quality of the waters of the state and includes the prevention and correction of water pollution and nuisance.

(j) "Water quality control plan" consists of a designation or establishment for the waters within a specified area of (1) beneficial uses to be protected, (2) water quality objectives, and (3) a program of implementation needed for achieving water quality objectives.

(k) "Contamination" means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. "Contamination" shall include any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

(l) "Pollution" means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects: (1) such waters for beneficial uses, or (2) facilities which serve such beneficial uses. "Pollution" may include "contamination."

(m) "Nuisance" means anything which: (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, and (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal, and (3) occurs during or as a result of the treatment or disposal of wastes.

* * *

§ 13243. Prohibition against discharge of waste in certain areas

A regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.

§ 13301. Cease and desist orders

When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action. In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to such system by dischargers who did not discharge into the system prior to the issuance of the cease and desist order. Cease and desist orders may be issued directly by a board, after notice and hearing, or in accordance with the procedure set forth in Section 13302.

Underline Indicates changes or additions by amendment

§ 13303. Cease and desist orders; finality on issuance

Cease and desist orders of the board shall become effective and final * * * upon issuance thereof. Copies shall be served forthwith by personal service or by registered mail upon the person being charged with the violation of the requirements and upon other affected persons who appeared at the hearing and requested a copy.

§ 13304. Cleanup or abatement order; injunction; remedial action by governmental entity; expenditures; contracts; payment of costs

(a) Any person who discharges waste into the waters of this state in violation of any waste discharge requirement or other order issued by a regional board or the state board, or who intentionally or negligently causes or permits any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up such waste or abate the effects thereof or, in the case of threatened pollution or nuisance, take other necessary remedial action. Upon failure of any person to comply with such cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring such person to comply therewith. In any such suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.

(b) The regional board may expend available moneys to perform any cleanup, abatement, or remedial work required under the circumstances set forth in subdivision (a) which in its judgment is required by the magnitude of endeavor or urgency of prompt action needed to prevent substantial pollution, nuisance, or in which the condition was abated and the amount of such lien, and naming the owner of record of such property, in the office of the county recorder of the county in which the property is located. Upon such recordation, the lien shall have the same force, effect, and priority as if it had been a judgment lien imposed upon real property which was not exempt from execution, except that it shall attach only to the property so posted and described in such notice of lien, and shall continue for 10 years from the time of the recording of such notice unless sooner released or otherwise discharged. Such lien may be foreclosed by an action brought by the city, county, other public agency, or state board, on behalf of the regional board, for a money judgment. Money recovered by a judgment in favor of the state board shall be returned to the State Water Pollution Cleanup and Abatement Account.

(g) The city, county, other public agency, or state board on behalf of a regional board, may at any time release all or any portion of the property subject to a lien imposed pursuant to subdivision (f) from the lien or subordinate such lien to other liens and encumbrances if it determines that the amount owed is sufficiently secured by a lien on other property or that the release or subordination of such lien will not jeopardize the collection of such amount owed. A certificate by such board, city, county, or other public agency to the effect that any property has been released from such lien or that such lien has been subordinated to other liens and encumbrances shall be conclusive evidence that the property has been released or that the lien has been subordinated as provided in such certificate.

(h) As used in this section, the words "nonoperating" or "not in operation" means the business is not conducting routine operations usually associated with that kind of business.

§ 13350. Civil liabilities; recovery of amount

(a) Any person who (1) intentionally or negligently violates any cease and desist order hereafter issued, reissued, or amended by a regional board or the state board, or (2) in violation of any waste discharge requirement or other order issued, reissued, or amended by a regional board or the state board, intentionally or negligently discharges waste or causes or permits waste to be deposited where it is discharged into the waters of the state and creates a condition of pollution or nuisance, or (3) causes or permits any oil or any residuary product of petroleum to be deposited in or on any of the waters of the state, except in accordance with waste discharge requirements or other provisions of this division, may be liable civilly in a sum of not to exceed six thousand dollars ($6,000) for each day in which such violation or deposit occurs.

Asterisks * * * indicate deletions by amendment

(b) The Attorney General, upon request of * * * a regional board or the state board, shall petition the superior court to impose, assess and recover such sums. Except in the case of a violation of a cease and desist order, a regional board or the state board shall make such request only after a hearing, with due notice of the hearing given to all affected persons. In determining such amount, the court shall take into consideration all relevant circumstances, including but not limited to, the extent of harm caused by the violation, the nature and persistence of the violation, the length of time over which the violation occurs and corrective action, if any, taken by the discharger.

(c) The provisions of Articles 3 (commencing with Section 13330) and 6 (commencing with Section 13360) of this chapter shall apply to proceedings to impose, assess and recover an amount pursuant to this article.

(d) Remedies under this section are in addition to, and do not supersede or limit, any and all other remedies, civil or criminal.

§ 13385. Civil penalties

Any person who discharges pollutants, except as permitted by waste discharge requirements, or who violates any cease and desist order, prohibition, waste discharge requirement, effluent limitation, water quality related effluent limitation, national standard of performance, pretreatment or toxicity standard or who refuses to comply with the requirements adopted pursuant to Section 13382 shall be subject to a civil penalty not to exceed ten thousand dollars ($10,000) for each day in which such discharge, violation, or refusal occurs. Funds collected shall be paid to the State Water Pollution Cleanup and Abatement Account.

§ 13386. Attorney general; recovery of civil penalties; injunctions

(a) The Attorney General, upon request of a regional board or the state board, shall petition the superior court to impose, assess and recover the sums provided in Section 13385.

(b) Upon the violation of the terms of any cease and desist order, prohibition, waste discharge requirement, effluent limitation, water quality related effluent limitation, national standard of performance, pretreatment or toxicity standard, the requirements of Section 13383, or upon the failure of any discharger into a public treatment system to comply with any cost or charge adopted by any public agency under Section 204(b) of the Federal Water Pollution Control Act, as amended, the Attorney General, upon the request of the state board or regional board shall petition the appropriate court for the issuance of a preliminary or permanent injunction, or both, as may be appropriate, restraining such person or persons from continuing the violation. The provisions of subdivisions (b) and (c) of Section 13331 shall be applicable to proceedings under this subdivision.

(c) With respect to violation of waste discharge requirements or cease and desist orders, remedies under Section 13385 are in lieu of civil monetary remedies provided for in Section 13350.

§ 13387. Fines and imprisonment; subsequent convictions

(a) Any person who willfully or negligently discharges pollutants except as allowed by waste discharge requirements or who willfully or negligently violates any effluent standard, water quality related effluent standard, national standard of performance, toxicity or pretreatment standard, or who refuses to comply with the requirements adopted pursuant to Section 13382, or who violates any cease and desist order, prohibition, or waste discharge requirement shall be punished by a fine of not more than twenty-five thousand dollars ($25,000) nor less than two thousand five hundred dollars ($2,500) for each day in which such violation occurs, or by imprisonment for not more than one year in the county jail, or by both. If the conviction is for a violation committed after a first conviction of such person under this section, punishment shall be by a fine of not more than fifty thousand dollars ($50,000) for each day in which such violation occurs, or by imprisonment for not more than two years in the county jail, or both. Funds collected shall be paid to the State Water Pollution Cleanup and Abatement Account.

(b) Any person who knowingly makes any false statement, representation, record, report, plan or other document filed with a regional board or the state board, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this division shall be punished by a fine of not more than ten thousand dollars ($10,000), or by imprisonment in a county jail for not more than six months, or by both.

25-8-102. Legislative declaration. (1) It is declared that pollution of state waters constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife and aquatic life, and impairs domestic, agricultural, industrial, recreational, and other beneficial uses of state waters and the problem of water pollution in this state is closely related to the problem of water pollution in adjoining states.

(2) It is further declared to be the public policy of this state to conserve state waters and to protect, maintain, and improve the quality thereof for public water supplies, for protection and propagation of wildlife and aquatic life, and for domestic, agricultural, industrial, recreational, and other beneficial uses; to provide that no pollutant be released into any state waters without first receiving the treatment or other corrective action necessary to protect the legitimate and beneficial uses of such waters; to provide for the prevention, abatement, and control of new or existing water pollution; and to cooperate with other states and the federal government in carrying out these objectives.

(3) It is further declared that protection of the quality of state waters and the prevention, abatement, and control of water pollution are matters of statewide concern and affected with a public interest, and the provisions of this article are enacted in the exercise of the police powers of this state for the purpose of protecting the health, peace, safety, and general welfare of the people of this state.

(4) This article and the agencies authorized under this article shall be the final authority in the administration of water pollution prevention, abatement, and control. Notwithstanding any other provision of law, no department or agency of the state, and no municipal corporation, county, or other political subdivision, having jurisdiction over water pollution prevention, abatement, and control, shall issue any authorization for the discharge of pollutants into state waters unless authorized to do so in accordance with this article.

25-8-103. Definitions. As used in this article, unless the context otherwise requires:

* * *

(4) "Effluent limitation" means any restriction or prohibition established under state or federal law on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into state waters, including but not limited to standards of performance for new sources, toxic effluent standards, and schedules of compliance.

(5) "Federal act" means the federal water pollution control act amendments of 1972 as from time to time amended.

(6) "Individual sewage disposal system" means a system or facility for treating, neutralizing, stabilizing, or disposing of sewage which is not a part of or connected to a sewage treatment works.

* * *

(9) "Person" means an individual, corporation, partnership, association, state, or political subdivision thereof, federal agency, state agency, municipality, commission, or interstate body.

(10) "Point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

(11) "Pollutant" means dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal, or agricultural waste.

(12) "Pollution" means the man-made, man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water.

(13) "Promulgate" means and includes authority to adopt, and from time to time amend, modify, publish, and put into effect.

(14) "Schedule of compliance" means a schedule of remedial measures and times including an enforceable sequence of actions or operations leading to compliance with any control regulation or effluent limitation.

(15) "Sewage treatment works" means a system or facility for treating, neutralizing, stabilizing, or disposing of sewage which system or facility has a designed capacity to receive more than two thousand gallons of sewage per day. The term "sewage treatment works" includes appurtenances such as outfall and outlet sewers, pumping stations, interceptors, collection lines, and related equipment.

(16) "State waters" means any and all surface and subsurface waters which are contained in or flow in or through this state, except waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.

(17) "Water quality standard" means any standard promulgated pursuant to section 25-8-204.

25-8-204. Water quality standards. (1) Water quality standards shall be promulgated by the commission by regulations which describe water characteristics or the extent of specifically identified pollutants for state waters.

(2) Water quality standards may be promulgated with respect to any measurable characteristic of water, such as:

(a) Toxic substances;

(b) Suspended solids, colloids, and combinations of solids with other suspended substances;

(c) Bacteria, fecal coliform, fungi, viruses, and other biological constituents and characteristics;

(d) Dissolved oxygen, and the extent of oxygen demanding substances;

(e) Phosphates, nitrates, and other dissolved nutrients;

(f) pH and hydrogen compounds;

(g) Chlorine, heavy metals, and other chemical constituents;

(h) Salinity, acidity, and alkalinity;

(i) Trash, refuse, oil and grease, and other foreign material;

(j) Taste, odor, color, and turbidity;

(k) Temperature.

(3) Water quality standards may be promulgated for use in connection with any one or more of the classes of state waters authorized pursuant to section 25-8-203 and may be made applicable with respect to any designated portion of state water or to all state waters.

25-8-307. Emergencies. Whenever the division determines, after investigation, that any person is discharging or causing to be discharged or is about to discharge into any state waters, directly or indirectly, any pollutant which in the opinion of the division constitutes a clear, present, and immediate danger to the health or livelihood of members of the public, the division shall issue its written order to said person that he must immediately cease or prevent the discharge of such pollutant into such waters and thereupon such person shall immediately discontinue such discharge. Concurrently with the issuance of such order the division may seek a restraining order or injunction pursuant to section 25-8-607.

25-8-604. Suspension, modification, and revocation of permit. Upon a finding and determination, after hearing, that a violation of a permit provision has occurred, the division shall suspend, modify, or revoke the pertinent permit, or take such other action with respect to the violation as may be authorized pursuant to regulations promulgated by the commission.

25-8-605. Cease and desist orders. If the division determines, with or without hearing, that there exists a violation of any provision of this article or of any order, permit, or control regulation issued or promulgated under authority of this article, the division may issue a cease and desist order. Such order shall set forth the provision alleged to be violated, the facts alleged to constitute the violation, and the time by which the acts or practices complained of must be terminated.

25-8-606. Clean-up orders. The division may issue orders to any person to clean up any material which he, his employee, or agent has accidentally or purposely dumped, spilled, or otherwise deposited in or near state waters which may pollute them. The division may also request the district attorney to proceed and take appropriate action under section 16-13-305 and sections 16-13-307 to 16-13-315, or section 18-4-511, C.R.S. 1973.

25-8-607. Restraining orders and injunctions. (1) In the event any person fails to comply with a cease and desist order or clean-up order that is not subject to a stay pending administrative or judicial review, the division may request the district attorney for the judicial district in which the alleged violation exists or the attorney general to bring, and if so requested it shall be his duty to bring, a suit for a temporary restraining order, preliminary injunction, or permanent injunction to prevent any further or continued violation of such order. In any such suit the final findings of the division, based upon evidence in the record, shall be prima facie evidence of the facts found therein.

(2) Suits under this section shall be brought in the district or county court where the discharge occurs. Emergencies shall be given precedence over all other matters pending in such court. The institution of such injunction proceeding by the division shall confer upon such court exclusive jurisdiction to determine finally the subject matter of the proceeding.

25-8-608. Civil penalties. (1) Any person who violates any provision of any permit issued under this article or any final cease and desist order or clean-up order shall be subject to a civil penalty of not more than ten thousand dollars per day for each day during which such violation occurs.

(2) Upon application of the division, penalties shall be determined by the commission after hearing as to the amount thereof and may be collected by the division by action instituted in a court of competent jurisdiction for collection of such penalty. A stay of any order of the division pending judicial review shall not relieve any person from any liability under subsection (1) of this section, but the reason for the request for judicial review shall be considered in the determination of the amount of the penalty.

25-8-609. Criminal pollution of state waters - penalties. (1) Any person who discharges any pollutant into any state waters commits criminal pollution of state waters if such discharge is made:

(a) In violation of any permit issued under this article; or

(b) In violation of any cease and desist order or clean-up order issued by the division which is final and not stayed by court order; or

(c) Without a permit, if a permit is required by the provisions of this article for such discharge, unless there is then pending an application for such a permit; or

(d) In violation of any applicable control regulation, unless a permit has been issued therefor or unless there is then pending an application for such permit.

(2) Prosecution under paragraphs (a) and (d) of subsection (1) of this section shall be commenced only upon complaint filed by the division.

(3) Any person who commits criminal pollution of state waters shall be fined, for each day the violation occurs, as follows:

(a) If the violation is committed with criminal negligence or recklessly, as defined in section 18-1-501, C.R.S. 1973, the maximum fine shall be twelve thousand five hundred dollars.

(b) If the violation is committed knowingly or intentionally, as defined in section 18-1-501, C.R.S. 1973, the maximum fine shall be twenty-five thousand dollars.

(c) If two separate offenses under this article occur in two separate episodes during a period of two years, the maximum fine for the second offense shall be double the amounts specified in paragraphs (a) and (b) of this subsection (3).

25-8-612. Remedies cumulative. (1) It is the purpose of this article to provide additional and cumulative remedies to prevent, control, and abate water pollution and protect water quality.

(2) No action pursuant to section 25-8-609 shall bar enforcement of any provision of this article, or of any rule or order issued pursuant to this article by any authorized means.

(3) Nothing in this article shall abridge or alter rights of action or remedies existing on July 6, 1973, or after said date, nor shall any provision of this article or anything done by virtue of this article be construed as estopping individuals, cities, towns, counties, cities and counties, or duly constituted political subdivisions of the state, from the exercise of their respective rights to suppress nuisances.

Sec. 25-54a. Declaration of policy. It is found and declared that the pollution of the waters of the state is inimical to the public health, safety and welfare of the inhabitants of the state, is a public nuisance and is harmful to wildlife, fish and aquatic life and impairs domestic, agricultural, industrial, recreational and other legitimate beneficial uses of water, and that the use of public funds and the granting of tax exemptions for the purpose of controlling and eliminating such pollution is a public use and purpose for which public monies may be expended and tax exemptions granted, and the necessity and public interest for the enactment of this chapter and the elimination of pollution is hereby declared as a matter of legislative determination. (1967, P.A. 57, S. 1.)

Sec. 25-54b. Definitions. As used in this chapter: "commissioner" means the commissioner of environmental protection; "waters" means all tidal waters, harbors, estuaries, rivers, brooks, watercourses, waterways, wells, springs, lakes, ponds, marshes, drainage systems, and all other surface or underground streams, bodies or accumulations of water, natural or artificial, public or private, which are contained within, flow through or border upon this state or any portion thereof; "wastes" means sewage or any substance, liquid, gaseous, solid or radioactive, which may pollute or tend to pollute any of the waters of the state; "pollution" means harmful thermal effect or the contamination or rendering unclean or impure or prejudicial to public health of any waters of the state by reason of any wastes or other material discharged or deposited therein by any public or private sewer or otherwise so as directly or indirectly to come in contact with any waters; "rendering unclean or impure" means any alteration of the physical, chemical or biological properties of any of the waters of the state, including, but not limited to, change in odor, color, turbidity or taste; "harmful thermal effect" means any significant change in the temperature of any waters resulting from a discharge therein, the magnitude of which temperature change does or is likely to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life; "person" means any individual, partnership, association, firm, corporation or other entity, except a municipality, and includes any officer or governing or managing body of any partnership, association, firm or corporation; "community pollution problem" means the existence of pollution which, in the sole discretion of the commissioner, can best be abated by the action of a municipality; "municipality" means any metropolitan district, town, consolidated town and city, consolidated town and borough, city, borough, village, fire and sewer district, sewer district and each municipal organization having authority to levy and collect taxes or make charges for its authorized function; "discharge" means the emission of any water, substance or material into the waters of the state, whether or not such substance causes pollution; "pollution abatement facility" means treatment works which are used in the treatment of waters, including the necessary intercepting sewers, outfall sewers, pumping, power and other equipment, and their appurtenances, and includes any extensions, improvements, remodeling, additions and alterations thereof; "disposal system" means a system for disposing of or eliminating wastes, either by surface or underground methods, and includes sewage systems, pollution abatement facilities, disposal wells and other systems; "federal water pollution control act" means the Federal Water Pollution Control Act, 33 U.S.C. section 466 et seq., including amendments thereto and regulations thereunder; "order to abate pollution" includes an order to abate existing pollution or to prevent reasonably anticipated sources of pollution. (1967, P.A. 57, S. 2; 1971, P.A. 872, S. 79.)

Sec. 25-54e. Standards of water quality. (a) The commissioner of environmental protection shall adopt, and may thereafter amend, standards of water quality applicable to the various waters of the state or portions thereof as provided in subdivision (a) of section 22a-6. Such standards shall be consistent with the federal water pollution control act and shall be for the purpose of qualifying the state and its municipalities for available federal grants and for the purpose of providing clear and objective public policy statements of a general program to improve the water resources of the state; provided no standard of water quality adopted shall plan for, encourage or permit any wastes to be discharged into any of the waters of the state without having first received the treatment available and necessary for the elimination of pollution. Such standards of quality shall: (1) Apply to interstate waters or portions thereof within the state; (2) apply to such other waters within the state as the commissioner may determine is necessary; (3) protect the public health and welfare and promote the economic development of the state; (4) preserve and enhance the quality of state waters for present and prospective future use for public water supplies, propagation of fish and aquatic life and wildlife, recreational purposes and agricultural, industrial and other legitimate uses; (5) be consistent with health standards as established by the state department of health.

(b) Prior to adopting, amending or repealing standards of water quality, the commissioner shall conduct a public hearing. Notice of such hearing specifying the waters for which standards are sought to be adopted, amended or repealed and the time, date and place of such hearing shall be published as provided in said subdivision (a) of section 22a-6 and also at least twice during the thirty-day period preceding the date of the hearing in a newspaper having a general circulation in the area affected and shall be given by certified mail to the chief executive officer of each municipality in such area. Prior to the hearing the commissioner shall make available to any interested person any information he has as to the water which is the subject of the hearing and the standards under consideration, and shall afford to any interested person the opportunity to submit to him any written material. At the hearing, any person shall have the right to make a written or oral presentation. A full transcript or recording of each hearing shall be made and kept available in the files of the department of environmental protection.

(c) The commissioner shall establish the effective date of the adoption, amendment or repeal of standards of water quality, subject to the provisions of subdivision (a) of section 22a-6. Notice of such adoption, amendment or repeal shall be published in said law journal upon acceptance thereof by the federal government.

(d) The commissioner shall monitor the quality of the subject waters to demonstrate the results of his program to abate pollution.

Sec. 25-54f. Pollution or discharge of wastes prohibited. No person or municipality shall cause pollution of any of the waters of the state or maintain a discharge of any treated or untreated wastes in violation of any provision of this chapter. (1967, P.A. 57, S. 6.)

Sec. 25-54g. Orders to municipalities to abate pollution. If the commissioner finds that any municipality is causing pollution of the waters of the state, or that a community pollution problem exists, or that pollution by a municipality or a community pollution problem can reasonably be anticipated in the future, he shall issue to the municipality an order to abate pollution. If the commissioner, after giving due regard to regional factors, determines that such pollution can best be abated by the action of two or more adjacent municipalities, he may issue his order jointly or severally to such municipalities. If a community pollution problem exists in, or if pollution is caused by, a municipality geographically located all or partly within the territorial limits of another municipality, the commissioner shall, after giving due regard to regional factors, determine which municipality shall be ordered to abate the pollution or shall, after giving due regard to regional factors, issue an order to both of such municipalities jointly to provide the facilities necessary to abate the pollution. Any order issued pursuant to this section shall include a time schedule for action by the municipality or municipalities, as the case may be, which may require, but is not limited to, the following steps to be taken by such municipality or municipalities: (a) Submission of an engineering report outlining the problem and recommended solution therefor for approval by the commissioner; (b) submission of contract plans and specifications for approval by the commissioner; (c) arrangement of financing; (d) acceptance of state and federal construction grants; (e) advertisement for construction bids; (f) start of construction; (g) placing in operation. (1967, P.A. 57, S. 7; 1969, P.A. 153; 1971, P.A. 872, S. 83.)

Sec. 25-54h. Order to person to abate pollution. If the commissioner finds that any person prior to May 1, 1967, has caused pollution of any of the waters of the state, which pollution recurs or continues after said date, he shall issue an order to abate pollution to such person. The order shall include a time schedule for the accomplishment of the necessary steps leading to the abatement of the pollution. This section shall not apply to any person who is subject to the provisions of section 25-54i. (1967, P.A. 57, S. 8; 1971, P.A. 872, S. 84.)

Sec. 25-54k. Order to correct potential sources of pollution. If the commissioner finds that any person is maintaining any facility or condition which reasonably can be expected to create a source of pollution to the waters of the state, he shall issue an order to such person maintaining such facility or condition to take the necessary steps to correct such potential source of pollution. Any person who receives an order pursuant to this section shall have the right to a hearing and an appeal in the same manner as is provided in sections 25-54o and 25-54p. If the commissioner finds that the recipient of any such order fails to comply therewith, he shall request the attorney general to bring an action in the superior court for Hartford county to enjoin such person from maintaining such potential source of pollution to the waters of the state. All actions brought by the attorney general pursuant to the provisions of this section shall have precedence in the order of trial as provided in section 52-191. (1967, P.A. 57, S. 11; 1971, P.A. 872, S. 87.)

Sec. 25-54n. Injunction. If any person or municipality fails to comply with any order to abate pollution, or any part thereof, issued pursuant to the provisions of section 25-54g, 25-54h, 25-54j or 25-54l, and no request for a hearing on such order or appeal therefrom is pending and the time for making such request or taking such appeal has expired, the commissioner shall request the attorney general to bring an action in the superior court for Hartford county to enjoin such person or municipality from maintaining such pollution and to comply fully with such order or any part thereof. All actions brought by the attorney general pursuant to the provisions of this section shall have precedence in the order of trial as provided in section 52-191. (1967, P.A. 57, S. 14; 1971, P.A. 872, S. 90.)

Sec. 22a-16. Action for declaratory and equitable relief against pollution. The attorney general, any political subdivision of the state, any instrumentality or agency of the state or of a political subdivision thereof, any person, partnership, corporation, association, organization or other legal entity may maintain an action in the superior court for the county wherein the defendant is located, resides or conducts business, except that where the state is the defendant, such action shall be brought in Hartford county, for declaratory and equitable relief against the state, any political subdivision thereof, any instrumentality or agency of the state or of a political subdivision thereof, any person, partnership, corporation, association, organization or other legal entity, acting alone, or in combination with others, for the protection of the public trust in the air, water and other natural resources of the state from unreasonable pollution, impairment or destruction. (1971, P.A. 96, S. 3.)

Del. Code Ann. tit. 7 (1974)

§ 6001. Findings, policy and purpose.

(a) *Findings.* — The General Assembly hereby makes the following findings concerning the development, utilization, and control of the land, water, underwater and air resources of the State:

(1) The development, utilization, and control of the land, water, underwater and air resources of the State are vital to the people in order to assure adequate supplies for domestic, industrial, power, agricultural, recreational and other beneficial uses;

(2) The development and utilization of the land, water, underwater and air resources must be regulated to ensure that the land, water, underwater and air resources of the State are employed for beneficial uses and not wasted;

(3) The regulation of the development and utilization of the land, water, underwater and air resources of the State is essential to protect beneficial uses and to assure adequate resources for the future;

(4) The land, water, underwater and air resources of the State must be protected and conserved to assure continued availability for public recreational purposes and for the conservation of wildlife and aquatic life;

(5) The land, water, underwater and air resources of the State must be protected from pollution in the interest of the health and safety of the public;

(6) The land, water, underwater and air resources of the State can best be utilized, conserved, and protected if utilization thereof is restricted to beneficial uses and controlled by a state agency responsible for proper development and utilization of the land, water, underwater and air resources of the State;

(7) Planning for the development and utilization of the land, water, underwater, and air resources is essential in view of population growth and the expanding economic activity within the State.

(b) *Policy.* — In view of the rapid growth of population, agriculture, industry, and other economic activities, the land, water and air resources of the State must be protected, conserved, and controlled to assure their reasonable and beneficial use in the interest of the people of the State. Therefore, it is the policy of this State that:

(1) The development, utilization, and control of all the land, water, underwater and air resources shall be directed to make the maximum contribution to the public benefit; and

(2) The State, in the exercise of its sovereign power, acting through the Department should control the development and use of the land, water, underwater and air resources of the State so as to effectuate full utilization, conservation, and protection of the water and air resources of the State.

(c) *Purpose.* — It is the purpose of this chapter to effectuate state policy by providing for:

(1) A program for the management of the land, water, underwater and air resources of the State so directed as to make the maximum contribution to the interests of the people of this State;

(2) A program for the control of pollution of the land, water, underwater and air resources of the State to protect the public health, safety and welfare;

(3) A program for the protection and conservation of the land, water, underwater and air resources of the State, for public recreational purposes, and for the conservation of wildlife and aquatic life;

(4) A program for conducting and fostering research and development in order to encourage maximum utilization of the land, water, underwater and air resources of the State;

(5) A program for cooperating with federal, interstate, state, local governmental agencies and utilities in the development and utilization of land, water, underwater and air resources;

(6) A program for improved solid waste storage, collection, transportation, processing and disposal by providing that such activities may henceforth be conducted only in an environmentally acceptable manner pursuant to a permit obtained from the Department. (7 Del. C. 1953, § 6001; 59 Del. Laws, c. 212, § 1.)

§ 6002. Definitions.

The following words and phrases shall have the meaning ascribed to them in this chapter unless the context clearly indicates otherwise:

(1) "Activity" means construction, or operation, or use of any facility, property, or device.

(2) "Air contaminant" means particulate matter, dust, fumes, gas, mist, smoke, or vapor or any combination thereof, exclusive of uncombined water.

(3) "Air pollution" means the presence in the outdoor atmosphere of 1 or more air contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant or animal life or to property, or which unreasonably interferes with the enjoyment of life and property within the jurisdiction of this State, excluding all aspects of employer-employee relationships as to health and safety hazards.

(4) "Board" means the Environmental Appeals Board.

(5) "Department" means the Department of Natural Resources and Environmental Control.

(6) "Garbage" shall mean any putrescible solid and semisolid animal and/or vegetable wastes resulting from the production, handling, preparation, cooking, serving or consumption of food or food materials.

(7) "Ground water" means any water naturally found under the surface of the earth.

(8) "Hazardous waste" means any element or compound which when discharged in any quantity on land or into air or into or upon waters and including ground water, presents an imminent and substantial danger to public health or welfare, aquatic organisms, including but not limited to, fish, shellfish, terrestrial life, shorelines, and beaches.

(9) "Industrial waste" means any water-borne liquid, gaseous, solid, or other waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development of any agricultural or natural resource.

(10) "Liquid waste" means any industrial waste or sewage or other wastes or any combination thereof which may potentially alter the chemical, physical, or biological integrity of water from its natural state.

(11) "Liquid waste hauler" means any person who engages in the removal of liquid wastes from septic tanks, cesspools, seepage pits, holding tanks or other such devices and conveys such liquid waste to a location removed from the point of acceptance.

(12) "Liquid waste treatment plant operator" means any person who has direct responsibility for the operation of a liquid waste treatment plant.

(13) "Oil" means oil of any kind and in any form, including but not limited to, petroleum products, sludge, oil refuse, oil mixed with other wastes and all other liquid hydrocarbons regardless of specific gravity.

(14) "Other wastes" means garbage, refuse, decayed wood, sawdust, shavings, bark, sand, lime cinders, ashes, offal, oil, tar, dye-stuffs, acids, chemicals, and all discarded substances other than sewage or industrial wastes.

(15) "Person" means any individual, partnership, corporation, association, institution, cooperative enterprise, municipality, commission, political subdivision or duly established legal entity.

(16) "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water.

(17) "Refuse" means any putrescible or nonputrescible solid waste, except human excreta, but including garbage, rubbish, ashes, street cleanings, dead animals, offal and solid agricultural, commercial, industrial, hazardous and institutional wastes and construction wastes resulting from the operation of a contractor.

(18) "Rubbish" means any nonputrescible solid waste, excluding ashes, such as cardboard, paper, plastic, metal or glass food containers, rags, waste metal, yard clippings, small pieces of wood, excelsior, rubber, leather, crockery, and other waste materials.

(19) "Secretary" means the Secretary of the Department of Natural Resources and Environmental Control or his duly authorized designee.

(20) "Sewage" means water-carried human or animal wastes from septic tanks, water closets, residences, buildings, industrial establishments, or other places, together with such ground water infiltration, subsurface water, admixtures of industrial wastes or other wastes as may be present.

(21) "Solid waste" means any garbage, refuse or rubbish or any combination thereof with insufficient liquid content to be free flowing.

(22) "Surface water" means water occurring generally on the surface of the earth.

(23) "Variance" means a permitted deviation from an established rule or regulation, or plan, or standard or procedure.

(24) "Water facility" means any reservoir, dam, waterway obstruction or well, or appurtenances needed for withdrawal, treatment, storage and supply of water.

(25) "Water pollution" means the man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of water.

(26) "Water well contractor" means any person engaged in the business of contracting for the construction of water wells and/or installation of pumping equipment in or for wells. (7 Del. C. 1953, § 6002; 59 Del. Laws, c. 212, § 1.)

§ 6003. Permit — Required.

(a) No person shall, without first having obtained a permit from the Secretary, undertake any activity:

(1) In a way which may cause or contribute to the discharge of an air contaminant; or

(2) In a way which may cause or contribute to discharge of a pollutant into any surface or ground water; or

(3) In a way which may cause or contribute to withdrawal of ground water or surface water or both; or

(4) In a way which may cause or contribute to the collection, transportation, storage, processing or disposal of solid wastes; or

(5) To construct, maintain or operate a pipeline system including any appurtenances such as a storage tank or pump station; or

(6) To construct any water facility; or

(7) To plan or construct any highway corridor which may cause or contribute to the discharge of an air contaminant or discharge of pollutants into any surface or ground water.

§ 6005. Enforcement; civil penalties.

(a) The Secretary shall enforce this chapter.

(b) Whoever violates this chapter or any rule or regulation duly promulgated thereunder, or any condition of a permit issued pursuant to § 6003 of this title, or any order of the Secretary, shall be punishable as follows:

(1) If the violation has been completed, by a civil penalty imposed by Superior Court of not less than $1,000 nor more than $10,000 for each completed violation. If the violation has been completed and there is a substantial likelihood that it will reoccur, the Secretary may also seek a permanent or preliminary injunction or temporary restraining order in the Court of Chancery.

(2) If the violation is continuing, the Secretary may seek a monetary penalty as provided in paragraph (1) of this subsection. If the violation is continuing or is threatening to begin, the Secretary may also seek a temporary restraining order or permanent injunction in the Court of Chancery. In his discretion, the Secretary may endeavor by conciliation to obtain compliance with all requirements of this chapter. Conciliation shall be giving written notice to the responsible party (i) specifying the complaint, (ii) proposing a reasonable time for its correction, (iii) advising that a hearing on the complaint may be had if requested by a date stated in the notice, and (iv) notifying that a proposed correction date will be ordered unless a hearing is requested. If no hearing is requested on or before the date stated in the notice, the Secretary may order that the correction be fully implemented by the proposed date or may, on his own initiative, convene a hearing, in which the Secretary shall publicly hear and consider any relevant submission from the responsible party as provided in § 6006. (7 Del. C. 1953, § 6005; 59 Del. Laws, c. 212, § 1.)

§ 6013. Criminal penalties.

(a) Any person who wilfully or negligently (1) violates § 6003 of this title or violates any condition or limitation included in a permit issued pursuant to § 6003 of this title or (2) violates any requirements of a statute or regulation respecting monitoring, recording, and reporting of a pollutant or air contaminant discharge; or (3) violates a pretreatment standard or toxic effluent standard with respect to introductions of pollutants into publicly owned treatment works shall be punished by a fine of not less than $2,500 nor more than $25,000 for each day of such violation.

(b) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under this chapter, or under any permit, rule, regulation or order issued under this chapter, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this chapter, shall upon conviction, be punished by a fine of not less than $500 nor more than $5,000 or by imprisonment for not more than 6 months, or both.

(c) The Superior Court shall have jurisdiction of offenses under this section. (7 Del. C. 1953, § 6013; 59 Del. Laws, c. 212, § 1.)

403.021 Legislative declaration; public policy

(1) The pollution of the air and waters of this state constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish and other aquatic life, and impairs domestic, agricultural, industrial, recreational, and other beneficial uses of air and water.

(2) It is declared to be the public policy of this state to conserve the waters of the state and to protect, maintain, and improve the quality thereof for public water supplies, for the propagation of wildlife, fish and other aquatic life, and for domestic, agricultural, industrial, recreational, and other beneficial uses, and to provide that no wastes be discharged into any waters of the state without first being given the degree of treatment necessary to protect the beneficial uses of such water.

(3) It is declared to be the public policy of this state and the purpose of this act to achieve and maintain such levels of air quality as will protect human health and safety, and to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the economic and social development of this state and facilitate the enjoyment of the natural attractions of this state.

(4) It is declared that local and regional air and water pollution control programs are to be supported to the extent practicable as essential instruments to provide for a coordinated statewide program of air and water pollution prevention, abatement and control for the securing and maintenance of appropriate levels of air and water quality.

(5) It is hereby declared that the prevention, abatement and control of the pollution of the air and waters of this state are affected with a public interest, and the provisions of this act are enacted in the exercise of the police powers of this state for the purpose of protecting the health, peace, and safety, and general welfare of the people of this state.

(6) The legislature finds and declares that control, regulation, and abatement of the activities which are causing or may cause pollution of the air or water resources in the state and which are or may be detrimental to human, animal, aquatic, or plant life, or to property, or unreasonably interfere with the comfortable enjoyment of life or property be increased to insure conservation of natural resources, to insure a continued safe environment, to insure purity of air and water, to insure domestic water supplies, to insure protection and preservation of the public health, safety, welfare, and economic well-being, to insure and provide for recreational and wildlife needs as the population increases and the economy expands, to insure a continuing growth of the economy and industrial development.

* * *

403.031 **Definitions**

In construing this chapter, or rules and regulations adopted pursuant thereto, the words, phrases or terms, unless the context otherwise indicates, shall have the following meanings:

(1) "Department" is the department of pollution control.

(2) "Pollution" is the presence in the outdoor atmosphere or waters of the state of any one or more substances, contaminants, or noise in quantities which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, or unreasonably interfere with the enjoyment of life or property, including outdoor recreation.

(3) "Waters" shall include, but not be limited to rivers, lakes, streams, springs, impoundments, and all other waters or bodies of water, including fresh, brackish, saline, tidal, surface or underground. Waters owned entirely by one person other than the state are included only in regard to possible discharge on other property or water. Underground waters include, but are not limited to, all underground waters passing through pores of rock or soils or flowing through in channels, whether man-made or natural.

(4) "Contaminant" is any substance which is harmful to plant, animal or human life.

(5) "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive, or other substances which may pollute or tend to pollute any waters of the state.

* * *

(10) "Source" is any and all points of origin of the item defined in subsection (4) of this section, whether privately or publicly owned or operated.

(11) "Person" means the state or any agency or institution thereof, any municipality, political subdivision, public or private corporation, individual, partnership, association, or other entity, and includes any officer or governing or managing body of any municipality, political subdivision, or public or private corporation.

(12) "Effluent limitations" means any restriction established by the department on quantities, rates, [or] [2] concentrations of chemical, physical, biological, [or] [2] other constituents which are discharged from sources into waters of the state.

403.061 **Department; powers and duties**

The department shall have the power and the duty to control and prohibit pollution of air and water in accordance with the law and rules and regulations adopted and promulgated by it, and for this purpose to:

(1) Approve and promulgate current and long-range plans developed to provide for air and water quality control and pollution abatement.

* * *

(7) Adopt, modify and repeal rules and regulations to carry out the intent and purposes of this act. Any rules or regulations adopted pursuant to this act shall be consistent with provisions of federal law, if any, relating to control of emissions from motor vehicles, effluent limitations, pretreatment requirements, or standards of performance.

* * *

(10) Issue such orders as may be necessary to effectuate the control of air and water pollution and enforce the same by all appropriate administrative and judicial proceedings.

(11) Adopt a comprehensive program for the prevention, control, and abatement of pollution of the air and waters of the state, and from time to time review and modify such program as necessary.

(12) In order to develop a comprehensive program for the prevention, abatement, and control of the pollution of the waters of the state, a grouping of the waters into classes may be made in accordance with the present and future most beneficial uses, such classifications may from time to time be altered or modified; provided, however, before any such classification is made, or any modifications made thereto, public hearings shall be held by the department.

(13) Establish ambient air quality and water quality standards for the state as a whole or for any part thereof, and also standards for the abatement of excessive and unnecessary noise. The department shall cooperate with the department of highway safety and motor vehicles in the development of regulations required by § 316.272(1).

* * *

(27) Perform any other act necessary to control and prohibit air and water pollution, and to delegate any of its responsibilities, authority and powers, other than rule-making powers, to any state agency now or hereinafter established.

403.062 Pollution control; underground water, lakes, etc.

The department and its agents shall have general control and supervision over underground water, lakes, rivers, streams, canals, ditches and coastal waters under the jurisdiction of the state insofar as their pollution may affect the public health or impair the interest of the public or persons lawfully using them.

403.088 Water pollution operation permits; temporary permits; conditions

(1) No person, without written authorization of the department, shall discharge into waters within the state any waste which, by itself or in combination with the wastes of other sources, reduces the quality of the receiving waters below the classification established for them.

(2) Any person discharging treated or untreated waste into waters within the state on a regular, intermittent or continuous basis prior to January 1, 1972 and who intends to continue such discharges shall file a written report of such discharges with the

subsection (3) may apply to the department for a temporary operation permit. Application shall be made on a form prescribed by the department and shall contain such information as the department may require. The department may require such person to submit any additional information reasonably necessary for proper evaluation.

(b) The department shall give notice to people resident in the drainage area of the receiving waters for the proposed discharge concerning the period during which they may present objections to the proposed discharge.

* * *

403.121 Enforcement; procedure; remedies

The department shall have the following judicial and administrative remedies available to it for violations of this chapter, as specified in § 403.161(1).

(1) Judicial remedies:

(a) The department may institute a civil action in a court of competent jurisdiction to establish liability and to recover damages for any injury to the air, waters, or property, including animal, plant, and aquatic life, of the state caused by any violation; and

(b) The department may institute a civil action in a court of competent jurisdiction to impose and to recover a civil penalty for each violation in an amount of not more than $5,000 per offense. However, the court may receive evidence in mitigation. Each day during any portion of which such violation occurs constitutes a separate offense.

(c) It shall not be a defense to, or ground for dismissal of, these judicial remedies for damages and civil penalties that the department has failed to exhaust its administrative remedies, has failed to serve a notice of violation, or has failed to hold an administrative hearing prior to the institution of a civil action.

(2) Administrative remedies:

(a) The department may institute an administrative proceeding to establish liability and to recover damages for any injury to the air, waters, or property, including animal, plant, or aquatic life, of the state caused by any violation. After a hearing, the board may order that the violator pay a specified sum as damages to the state. Judgment for the amount of damages determined by the board may be entered in any court having jurisdiction thereof and may be enforced as any other judgment.

(b) If the department has reason to believe a violation has occurred, it may institute an administrative proceeding to order the prevention, abatement, or control of the conditions creating the violation or other appropriate corrective action.

(c) An administrative proceeding shall be instituted by the department's serving of a written notice of violation upon the alleged violator by certified mail. The notice shall specify the provision of the law, rule, regulation, permit, certification, or order of the department alleged to be violated and the facts alleged to constitute a violation thereof. An order for corrective action may be included with the notice. However, no order shall

become effective until after service and an administrative hearing, if requested within twenty days after service. Failure to request an administrative hearing within this time period shall constitute a waiver thereof. Further conduct, procedure, discovery, and pleadings for the administrative proceeding shall be provided for by the rules and regulations of the department pursuant to chapter 120. All parties to an administrative proceeding shall be afforded all rights of discovery permitted by the Florida Rules of Civil Procedure, and the board or hearing examiner may issue appropriate orders to effectuate the purposes of discovery.

(d) Nothing herein shall be construed as preventing any other legal or administrative action in accordance with law.

(3) Every order of the department is legally enforceable and binding and reviewable only in accordance with the Administrative Procedure Act, chapter 120, part III.

403.131 Injunctive relief, cumulative remedies

(1) The department may institute a civil action in a court of competent jurisdiction to seek injunctive relief to enforce compliance with this chapter or any rule, regulation, permit certification, or order; to enjoin any violation specified in § 403.161(1); and to seek injunctive relief to prevent irreparable injury to the air, waters, and property, including animal, plant, and aquatic life, of the state and to protect human health, safety, and welfare caused or threatened by any violation.

(2) All the judicial and administrative remedies in this section and § 403.121 are independent and cumulative except that the judicial and administrative remedies to recover damages are alternative and mutually exclusive.

403.141 Civil liability; joint and several liability ✓

(1) Whoever commits a violation specified in § 403.161(1) is liable to the state for any damage caused to the air, waters, or property, including animal, plant, or aquatic life, of the state and for reasonable costs and expenses of the state in tracing the source of the discharge, in controlling and abating the source and the pollutants, and in restoring the air, waters, and property, including animal, plant, and aquatic life, of the state to their former condition, and furthermore is subject to the judicial imposition of a civil penalty for each offense in an amount of not more than $10,000 per offense. However, the court may receive evidence in mitigation. Each day during any portion of which such violation occurs constitutes a separate offense. Nothing herein shall give the department the right to bring an action on behalf of any private person.

(2) Whenever two or more persons pollute the air or waters of the state in violation of this chapter or any rule, regulation, or order of the department so that the damage is indivisible, each violator shall be jointly and severally liable for such damage and for the reasonable cost and expenses of the state incurred in tracing the source of discharge, in controlling and abating the source and the pollutants, and in restoring the air, waters, and property, including the animal, plant, and aquatic life of the state, to their former condition. However, if said damage is divisible and may be attributed to a particular violator or violators, each violator is liable only for that damage attributable to his violation.

(3) In assessing damages for fish killed, the value of the fish is to be determined in accordance with a table of values for individual categories of fish which shall be promulgated by the department. At the time the table is adopted, the department shall utilize tables of values established by the department of natural resources and the game and fresh water fish commission. The total number of fish killed may be estimated by standard practices used in estimating fish population.

403.161 Prohibitions, violation, penalty, intent

(1) It shall be a violation of this chapter, and it shall be prohibited:

(a) To cause pollution, except as otherwise provided in this chapter, so as to harm or injure human health or welfare, animal, plant, or aquatic life or property.

(b) To fail to obtain any permit required by this chapter or by rule or regulation, or to violate or fail to comply with any rule, regulation, order, permit, or certification adopted or issued by the department pursuant to its lawful authority.

(c) To knowingly make any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this chapter, or to falsify, tamper with, or knowingly render inaccurate any monitoring device or method required to be maintained under this chapter or by any permit, rule, regulation, or order issued under this chapter.

(2) Whoever commits a violation specified in subsection (1) is liable to the state for any damage caused and for civil penalties as provided in § 403.141.

(3) Any person who willfully or negligently commits a violation specified in subsections (1)(a) and (b) shall be guilty of a misdemeanor of the first degree punishable as provided in [§§ 775.082(4)(a) and 775.083(7)][1] by a fine of not less than $2,500 or more than $25,000, or punishable by one year in jail, or by both for each offense. Each day during any portion of which such violation occurs constitutes a separate offense.

Ga. Code Ann. (1971), as amended, (Supp. 1974)

17-502. Policy declared.—The people of the State of Georgia are dependent upon the rivers, streams, lakes and subsurface waters of the State for public and private water supply and for agricultural, industrial and recreational uses; therefore, it is hereby declared to be the policy of the State of Georgia that the water resources of the State shall be utilized prudently to the maximum benefit of the people in order to restore and maintain a reasonable degree of purity in the waters of the State, and to require, where necessary, reasonable treatment of sewage, industrial wastes, and other wastes prior to their discharge into the waters of the State. To achieve this end, the Government of the State shall assume responsibility for the quality of said water resources and the establishment and maintenance of a water quality control program adequate for present needs and designated to care for the future needs of the State. Provided that nothing contained herein shall be construed to waive the immunity of the State for any purpose.

This requires that an agency of the State be created within the State Department of Public Health and that this agency be charged with the foregoing duty and that it have authority to require the use of reasonable methods after having considered the technical means available for the reduction of pollution and the economic factors involved to prevent and control the pollution of the waters of the State.

Further, it is the intent of this Chapter to provide administrative facilities and procedure within the executive branch of the Government for determining pollution of the waters of the State, and to confer discretionary administrative authority upon the agency to take these and related circumstances into consideration in its decisions and actions in determining, under the conditions and specific cases, those procedures to best protect the public interest.

17-503 Definitions

The following words and phrases as used in this Chapter shall, unless different meaning is required by the context, have the following meaning:

(a) "Department" shall mean the Department of Public Health of the State of Georgia.

(b) "Division" shall mean the Division of Georgia Water Quality Control created within the Department of Public Health.

(c) "Board" shall mean the State Water Quality Control Board of the State of Georgia as created by this Chapter.

(d) "Waters" or "waters of the State" includes any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, and all other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the State which are not entirely confined and retained completely upon the property of a single individual, partnership, or corporation.

(e) "Person" means any individual, corporation and partnerships and other unincorporated associations and may extend and be applied to bodies politic and corporate.

(f) "Pollution," means the man-made or man induced alteration of the chemical, physical, biological and radiological integrity of water.

(g) "Sewage" means the water-carried waste products or discharges from human beings or from the rendering of animal products, or chemicals or other wastes from residences, public or private buildings, or industrial establishments, together with such ground, surface or storm water as may be present.

(h) "Industrial wastes" means any liquid, solid or gaseous substance or combination thereof resulting from a process of industry, manufacture, or business or from the development of any natural resources.

(i) "Other wastes" means liquid, gaseous, or solid substances, except industrial wastes and sewage, which may cause or tend to cause pollution of any waters of the State.

(j) "Sewage system" means sewage treatment works, pipelines or conduits, pumping stations and force mains and all other constructions, devices, and appliances appurtenant thereto, used for conducting sewage or industrial wastes or other wastes to the point of ultimate disposal.

(k) The singular includes the plural, the plural the singular, and the masculine, the feminine, when consistent with the intent of this Chapter.

(l) "Effluent limitation," means any restriction or prohibition established under this Chapter on quantities, rates, or concentrations, or a combination thereof, of chemical, physical, biological or other constituents which are discharged from point sources into the waters of the State, including, but not limited to, schedules of compliance.

(m) "Pollutant," means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, industrial wastes, municipal waste and agricultural waste discharged into the waters of the State. It does not mean (1) sewage from vessels or (2) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well, used either to facilitate production or for disposal purposes, is approved by the appropriate authorities of this State and if such authorities determine that such injection or disposal will not result in degradation of ground or surface water resources.

(n) "Point source," means any discernible, confined, or discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

(o) "Non-point source," means any source which discharges pollutants into the waters of the State other than a point source.

17-505 Powers and duties of board

(a) In the performance of its duties, the board may:

* * *

(9) Adopt rules and regulations it deems necessary for the proper administration of this Chapter, which rules and regulations shall be promulgated jointly by the Water Quality Control Board and the Department of Public Health. Such rules and regulations shall contain a date on which they are to become effective, and on such date they shall become effective and have the force and effect of law. Copies of such rules and regulations shall be made available to the public;

(10) Establish or revise standards of water purity for any of the waters of this State, which specify the maximum degree of pollution permissible in accordance with the public interest in water supply, the conservation of fish, game and aquatic life, and agricultural, industrial and recreational uses. **Prior to establishing or revising the standards of water purity, the board shall consider the technical means available for the reduction of pollution and the economical factors involved;**

(12) Make investigations and inspections to insure compliance with this Chapter, the rules and regulations issued pursuant hereto, and any orders that the board may adopt or issue;

(13) Issue an order or orders directing any particular person or persons to secure within the time specified therein such operating results as are reasonable and practicable of attainment toward the control, abatement, and prevention of pollution of the waters of the State and the preservation of the necessary quality for the reasonable use thereof;

(14) Exercise all incidental powers necessary to carry out the purposes of this Chapter.

(15) Establish or revise through rules and regulations or permit conditions or both, effluent limitations based upon an assessment of technology and processes unrelated to the quality of the receiving waters of this State;

(16) Perform any and all acts necessary to carry out the purposes and requirements of this Chapter and of the Federal Water Pollution Control Act, as amended, relating to this State's participation in the National Pollutant Discharge Elimination System established under that Act.

17-514. Investigations of violations; enforcement action.—The board shall have authority to investigate any apparent violation and to take any action authorized hereunder it deems necessary, and may, after a public hearing has been provided, institute proceedings of mandamus or other proper legal proceedings to enforce the provisions of this Chapter.

17-521.1. Civil liability.—(1) Any person who intentionally or negligently causes or permits any sewage, industrial wastes or other wastes, oil, scum, floating debris or other substance or substances to be spilled, discharged or deposited in the waters of the State, resulting in a condition of pollution as defined by this Chapter, shall be liable in damages to the State and any political subdivision thereof for any and all costs, expenses and injuries occasioned by such spills, discharges or deposits. The amount of the damages assessed pursuant to this section shall include, but shall not be limited to, any costs and expenses reasonably incurred by the State or any political subdivision thereof, as the case may be, in cleaning up and abating such spills, discharges or deposits and any costs and expenses reasonably incurred in replacing aquatic life destroyed by such spills, discharges or deposits. Damages to the State shall be recoverable in a civil action instituted in the name of the Georgia Water Quality Control Board and shall be paid into the State treasury to the credit of the general fund. Damages to a political subdivision shall be recoverable in a civil action instituted by said subdivision.

(2) Any person who intentionally, negligently or accidentally causes or permits any toxic, corrosive, acidic, caustic or bacterial substance or substances to be spilled, discharged or deposited in the waters of the State, except by providential cause, in amounts, concentrations or combinations which are harmful to the public health, safety or welfare, or to animals, birds or aquatic life shall be strictly liable in damages to the State and any political subdivision thereof for any and all costs, expenses and injuries occasioned by such spills, discharges or deposits. Damages to the State shall be recoverable in a civil action instituted in the name of the Georgia Water Quality Control Board and shall be paid into the State treasury to the credit of the general fund. Damages to a political subdivision shall be recoverable in a civil action instituted by said subdivision.

17-521.2 Civil penalties and procedures for imposing such penalties

(a) Civil penalties—Any person violating any provision of this Chapter or any permit condition or limitation established pursuant to this Chapter, or, negligently or intentionally, failing or refusing to comply with any final or emergency order of the Director of the Division of Environmental Protection of the Georgia Department of Natural Resources issued as herein provided, shall be liable to a civil penalty not to exceed $10,000 per day for each day during which such violation continues.

(b) Procedures—The director after a hearing shall determine whether or not any person has violated any provision of this Chapter or has, negligently or intentionally, failed or refused to comply with any final or emergency order of the director and may upon a proper finding issue his order imposing such civil penalties as herein provided. Any person so penalized under this section is entitled to judicial review. In this connection, all hearings and proceedings for judicial review under this section shall be in accordance with the Georgia Administrative Procedure Act as herein provided. All penalties recovered by the director as herein provided by this Chapter shall be paid into the State Treasury to the credit of the general fund.

§342-1 Definitions. As used in this chapter, unless the context otherwise requires:

(1) "Complaint" means any written charge filed with or by the department that a person is violating any provision of this chapter or any rule, regulation, or order promulgated pursuant to this chapter.

(2) "Department" means the department of health.

* * *

(5) "Permit" means authorization to discharge waste which, when granted, takes into account the public interest and contains a schedule of abatement approved by the director; or authorization to construct, modify, or operate any air pollution source; or authorization to emit excessive noise; or authorization to operate a sanitary landfill or open dump.

(6) "Person" means any individual, partnership, firm, association, public or private corporation, the State or any of its political subdivisions, trust estate or any other legal entity.

(7) "Pollution" means air pollution, water pollution, or excessive noise as hereinafter defined.

(8) "Treatment works" means any plant or other facility used for the purpose of controlling pollution.

(9) "Variance" means authorization to discharge waste when, after public hearing the director finds that the continuance of the function or operation causing the waste discharge to be in the public interest, the value of the continuance to outweigh the harm caused by the waste discharge, and which does not require an immediate schedule of abatement.

(10) "Waste" means sewage, industrial and agricultural waste, excessive noise and all other liquid, gaseous, or solid substance, including radioactive substance, whether treated or not, which may pollute or tend to pollute the atmosphere, lands or waters of this State. [L 1972, c 100, pt of §1; am L 1973, c 118, §1 (1)]

§342-31 Definitions. As used in this part, unless the context otherwise requires:

(1) "Coastal waters" means all waters surrounding the islands of the Stat from the coast of any island to a point three miles seaward from th coast, and, in the case of streams, rivers, and drainage ditches, to point three miles seaward from their point of discharge into the s and includes those brackish waters, fresh waters and salt waters th are subject to the ebb and flow of the tide.

(2) "Drainage ditch" means that facility used to carry storm run-off only

(3) "Effluent" means the discharge of any substance into state waters, including, but not limited to, sewage, waste, garbage, feculent matter, offal, filth, refuse, any animal, mineral, or vegetable matter or substanc and any liquid, gaseous, or solid substances.

(4) "Effluent sources" include, but are not limited to, sewage outfalls, refuse systems and plants, water systems and plants, and industri plants.

(5) "Sewerage system" means pipelines or conduits, pumping stations, an force mains, and all other structures, devices, appurtenances, and fac ities used for collecting or conducting wastes to an ultimate point f treatment or disposal.

(6) "State waters" means all waters, fresh, brackish, or salt, around and within the State, including, but not limited to, coastal waters, stream rivers, drainage ditches, ponds, reservoirs, canals, ground waters an lakes; provided that drainage ditches, ponds, and reservoirs require as a part of a pollution control system are excluded.

(7) "Water pollution" means:
   (A) Such contamination or other alteration of the physical, chemi or biological properties of any state waters, including change temperature, taste, color, turbidity, or odor of the waters, or
   (B) Such discharge of any liquid, gaseous, solid, radioactive, or oth

substances into any state waters, as will or is likely to create a nuisance or render such waters unreasonably harmful, detrimental or injurious to public health, safety or welfare, including harm, detriment, or injury to public water supplies, fish and aquatic life and wildlife, recreational purposes and agricultural and industrial research and scientific uses of such waters or as will or is likely to violate any water quality standards, effluent standards, treatment and pretreatment standards or standards of performance for new sources promulgated by the department.

(8) "Standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the director determines to be achievable through application of the best demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

(9) "New source" means any source the construction of which is commenced after the adoption of regulations prescribing a standard of performance which will be applicable to such source. [L 1972, c 100, pt of §1; am L 1973, c 118, § 1(7)]

§342-32 Powers and duties, specific. In addition to any other power or duty prescribed by law and in this part, the director shall prevent, control, and abate water pollution in the State. In the discharge of this duty, the director may:

(1) Establish by rule or regulation water quality standards, effluent standards, treatment and pretreatment standards, and standards of performance for specific areas and types of discharges in the control of water pollution, thereby allowing for varying local conditions;

* * *

(9) Receive or initiate complaints of water pollution, hold hearings in connection with water pollution, and institute legal proceedings in the

* * *

§342-33 Prohibition. No person, including any public body, shall use any state waters for the disposal of waste or engage in activity which causes state waters to become polluted, or violate any water quality permit or term or condition thereof without first securing approval in writing from the director.

No person, including any public body, shall knowingly establish, extend or alter any system of drainage, sewage, or water supply, or undertake any project in sewage outfall areas where there may be a possibility of alteration of currents depended upon for dilution without first securing approval in writing from the director. [L 1972, c 100, pt of §2; am L 1973, c 118, §1(9)]

§342-8 Cease and desist orders. (a) If the director determines that any person is:

(1) Violating this chapter; or

(2) Violating any rule or regulation promulgated under this chapter;

he may cause written notice to be served upon the alleged violator or violators. The notice shall specify the alleged violation and may contain an order specifying a reasonable time during which the person shall be required to take such measures as may be necessary to correct the violation and to give periodic progress reports. Any such order shall become final unless no later than twenty days after the date of notice and order are served, the person or persons named therein request in writing a hearing before the director. Upon such request, the director shall require that the alleged violator or violators appear before him for a hearing at a time and place specified in the notice and answer the charges complained of.

In lieu of an order, the director may require that the alleged violator or violators appear before him for a hearing at a time and place specified in the notice and answer the charges complained of.

(b) If after a hearing held pursuant to subsection (a) of this section, the director finds that a violation or violations have occurred, he shall affirm or modify his order previously issued or issue an appropriate order or orders for the prevention, abatement or control of the violation or discharges involved, or for the taking of such other corrective action as may be appropriate. If, after hearing on an order contained in a notice, the director finds that no violation has occurred or is occurring, he shall rescind the order. Any order issued as part of a notice or after hearing may prescribe the date or dates by which the violation or violations shall cease and may prescribe timetables for necessary action in preventing, abating, or controlling the violation or discharges.

(c) Any violation of an order issued by the director may at the discretion of the director subject the violator or violators to the penalties specified in section 342-11 and the injunction remedies specified in section 342-12.

The director is authorized to impose the penalty specified in section 342-11(a) and section 342-11(c) and may institute a civil action in the name of the State to recover the civil penalty which shall be a government realization.

In any proceeding to recover the civil penalty imposed, the director need only show that notice was given, a hearing was held or the time granted for requesting a hearing has run without such a request, the civil penalty was imposed, and that the penalty remains unpaid.

(d) Nothing in this section shall prevent the director from making efforts to obtain voluntary compliance by warning, conference, or any other appropriate means.

(e) In connection with any hearing held pursuant to this section, the director shall have the power to subpoena the attendance of witnesses and the production of evidence on behalf of all parties. [L 1972, c 100, pt of §1; am L 1973, c 118, §1(4)]

[§342-9] Emergency powers; procedures. (a) Notwithstanding any other law to the contrary, if the director determines that an imminent peril to the public health and safety is or will be caused by discharge of waste or any combination of discharges of waste, or excessive noise, which requires immediate action, he may, with the approval of the governor and without public hearing, order any person causing or contributing to the discharge of waste or excessive noise to immediately reduce or stop such discharge or emission or the director may take any and all other actions as may be necessary. Such order shall fix a place and time, not later than twenty-four hours thereafter, for a hearing to be held before the director.

(b) Nothing in this section shall be construed to limit any power which the governor or any other officer may have to declare an emergency and act on the basis of such declaration, if such power is conferred by statute or constitutional provision, or inheres in the office. [L 1972, c 100, pt of §1]

§342-11 Penalties.

* * *

(d) Any person who willfully or negligently violates part III of this chapter[1] or any rule or regulation promulgated by the department pursuant to part III of this chapter shall be punished by a fine of not less than $2,500 nor more than $25,000, per day of violation or by imprisonment for not more than one year, or both.

(e) Any person who denies, obstructs, or hampers the entrance and inspection by any duly authorized officer or employee of the department of any building or place which he is authorized to enter and inspect shall be fined not more than $500. Any action taken to impose or collect the penalty provided for in this subsection shall be considered a civil action. [L 1972, c 100, pt of §1; am L 1973, c 118, §1(6); am L 1974, c 250, §1]

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[1] The Water Pollution Control Provisions.

Id. Code (1961), as amended, (Supp. 1974)

39-102. State policy on environmental protection.—It is hereby recognized by the legislature that the protection of the environment and the promotion of personal health are vital concerns and are therefore of great importance to the future welfare of this state. It is therefore declared to be the policy of the state to provide for the protection of the environment and the promotion of personal health and to thereby protect and promote the health, safety and general welfare of the people of this state. [1972, ch. 347, § 2, p. 1017.]

/ **39-103. Definitions.**—Whenever used or referred to in this act, unless a different meaning clearly appears from the context, the following terms shall have the following meanings:

* * *

8. "Water pollution" is such alteration of the physical, thermal, chemical, biological or radioactive properties of any waters of the state, or such discharge of any contaminant into the waters of the state as will or is likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety or welfare or to domestic, commercial, industrial, recreational, esthetic or other legitimate uses or to livestock, wild animals, birds, fish or other aquatic life.

9. "Waters" means all the accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof which are wholly or partially within, flow through or border upon this state.

* * *

39-108. Investigation — Violation — Notice — Complaint — Hearing—Orders and consent decrees—Penalty—Injunctions.—1. The director shall cause investigations to be made upon the request of the board or upon receipt of information concerning an alleged violation of this act or of any rule or regulation promulgated thereunder, and may cause to be made such other investigations as he shall deem advisable.

2. The director or his designee shall have the authority to:

a. Conduct a program of continuing surveillance and of regular or periodic inspection of actual or potential health hazards, air contamination sources, water pollution sources, noise sources, and of solid waste disposal sites;

b. Enter at all reasonable times upon any private or public property for the purpose of inspecting or investigating to ascertain possible violations of this act or of rules, standards and regulations adopted and promulgated by the board.

3. If an investigation discloses that there is a reasonable basis for believing that a violation exists, the director or his designee shall issue and serve upon the person complained against, a written notice, together with a formal complaint, which shall specify the provision of this law or the rule or regulation under which said person is said to be in violation, and a statement of the manner in, and the extent to, which such person is said to violate this law or rule or regulation, and shall require the person so complained against to answer the charges of such formal complaint at a hearing before the board or a designated hearing officer at a time not less than twenty-one (21) days after the date of notice. A copy of such notice and complaint shall also be sent to any person who has complained to the department respecting the respondent within the six (6) months preceding the date of the complaint, and to any person in the county where the alleged offense occurred who has requested notice of enforcement proceedings; twenty-one (21) days' notice of such hearing shall also be published in a newspaper of general circulation in such county. The respondent may file a written answer and at such hearing the rules prescribed in this act shall apply.

4. After due consideration of the written and oral statements and the testimony and arguments that shall be submitted at the hearing, or upon default in appearance of the respondent on the return day specified in the notice, the board shall issue, enter or make such final determination by order, including but not limited to orders to abate sources of air or water pollution, as it shall deem appropriate under the circumstances. If the hearing is before a designated hearing officer, the hearing officer shall submit a proposed decision, including proposed findings of fact, to the board. The board shall give due consideration to the proposed findings and decision as well as the transcript of the hearing. In all such matters, the board shall file and publish a written opinion stating the facts and the reasons leading to its decision. The board shall immediately notify the respondent of such order in writing by registered mail.

5. If such preventive or corrective measures are not taken in accordance with the order of the board, the director may institute a civil action in any court of competent jurisdiction for injunctive or mandamus relief to prevent any further violation of such order, rule or regulation. The district court in and for the county where the violation occurred shall have power to grant the relief asked for, upon notice and hearing.

6. Any person determined by the board to have violated any provision of this act or any rule or regulation promulgated pursuant to this act shall be liable for a civil penalty not to exceed one thousand dollars ($1,000) per day beginning with the tenth day after the expiration of the time fixed for the taking of the preventive or corrective measures in the board's order. The method of recovery of said penalty shall be by action in the district court in and for the county where the violation occurred. All civil penalties collected under this act shall be paid into the general fund of the state.

7. In addition to such civil penalties, any person who violates this act shall be liable for any expense incurred by the state in enforcing the act, or in enforcing or terminating any nuisance, source of environmental degradation, cause of sickness, or health hazard.

8. No action taken pursuant to the provisions of this act or of any other environmental protection or health law shall relieve any person from any civil action and damages that may exist for injury or damage resulting from any violation of this law or of the rules and regulations promulgated by the board.

9. The board may, in those cases where the person has given evidence of a willingness to cooperate with the department, permit a person against whom a complaint has been issued to waive formal proceedings and enter into a consent proceeding. The consent decree shall have the same effect as an order by the board.

10. Notwithstanding other provisions of this act, in circumstances of emergency creating conditions of immediate danger to the public health, the prosecuting attorney or the attorney general may institute a civil action for an immediate injunction to halt any discharge, emission or other activity in violation of provisions of this act or rules or regulations promulgated thereunder. In such action the court may issue an ex parte restraining order. [1972, ch. 347, § 8, p. 1017; am. 1974, ch. 23, § 52, p. 633.]

39-109. Employment of counsel—Criminal action authorized.—The director may employ counsel or may retain private counsel. In addition, the attorney general may bring any criminal action requested by the board, or may delegate this authority to the prosecuting attorney of the county in which a criminal action may arise. [1972, ch. 347, § 9, p. 1017; am. 1974, ch. 23, § 53, p. 633.]

39-117. Violation — Penalty — Misdemeanor. — Any person who wilfully or negligently violates any of the provisions of the public health or environmental protection laws or the terms of any lawful notice, order, permit, standard, rule or regulation issued pursuant thereto, shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than three hundred dollars ($300) for each separate violation. Each day upon which such violation occurs shall constitute a separate violation. [I. C., § 39-117, as added by 1973, ch. 137, § 1, p. 268.]

Ill. Ann. Stat. ch. 111 1/2 (Supp. 1975)

§ 1003. Definitions

* * *

(n) "Water pollution" is such alteration of the physical, thermal, chemical, biological or radioactive properties of any waters of the State, or such discharge of any contaminant into any waters of the State, as will or is likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate uses, or to livestock, wild animals, birds, fish, or other aquatic life.

(o) "Waters" means all accumulations of water, surface and underground, natural, and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this State.

* * *

1011. Legislative declaration

(a) The General Assembly finds:

(i) that pollution of the waters of this State constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish, and aquatic life, impairs domestic, agricultural, industrial, recreational, and other legitimate beneficial uses of water, depresses property values, and offends the senses;

(ii) that the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500)[1] provide for a National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of contaminants to the waters of the United States;

(iii) that it would be inappropriate and misleading for the State of Illinois to issue permits to contaminant sources subject to such federal law as well as State law, which do not contain such terms and conditions as are required by federal law, or the issuance of which is contrary to federal law;

(iv) that the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500) provide that NPDES permits shall be issued by the United States Environmental Protection Agency unless (a) the State is authorized by and under its law to establish and administer its own permit program for discharges into waters within its jurisdiction, and (b) pursuant to such federal Act, the Administrator of the United States Environmental Protection Agency approves such State program to issue permits which will implement the provisions of such federal Act;

(v) that it is in the interest of the People of the State of Illinois for the State to authorize such NPDES program and secure federal approval thereof, and thereby to avoid the existence of duplicative, overlapping or conflicting state and federal statutory permit systems;

(vi) that the federal requirements for the securing of such NPDES permit program approval, as set forth in the Federal Water Pollution Control Act Amendments of 1072 (P.L. 92-500) and in regulations promulgated by the Administrator of the United States Environmental Protection Agency pursuant thereto are complex and detailed, and the General Assembly cannot conveniently or advantageously set forth in this Act all the requirements of such federal Act or all regulations which may be established thereunder.

(b) It is the purpose of this Title to restore, maintain and enhance the purity of the waters of this State in order to protect health, welfare, property, and the quality of life, and to assure that no contaminants are discharged into the waters of the State, as defined herein, including, but not limited to, waters to any sewage works, or into any well, or from any source within the State of Illinois, without being given the degree of treatment or control necessary to prevent pollution, or without being made subject to such conditions as are required to achieve and maintain compliance with State and federal law; and to authorize, empower, and direct the Board and the Agency to adopt such regulations and procedures as will enable the State to secure federal approval to issue NPDES permits pursuant to the provisions of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500) and federal regulations pursuant thereto.

(c) The provisions of this Act authorizing implementation of and regulations pursuant to an NPDES program shall not be construed to limit, affect, impair, or diminish the authority, duties and responsibilities of the Board, Agency, Institute or any other governmental agency or officer, or of any unit of local government, to regulate and control pollution of any kind, to restore, to protect or to enhance the quality of the environment, or to achieve all other purposes, or to enforce provisions, set forth in this Act or other State law or regulation.

§ 1012. Acts prohibited

No person shall:

(a) Cause or threaten or allow the discharge of any contaminants into the environment in any State so as to cause or tend to cause water pollution in Illinois, either alone or in combination with matter from other sources, or so as to violate regulations or standards adopted by the Pollution Control Board under this Act;

(b) Construct, install, or operate any equipment, facility, vessel, or aircraft capable of causing or contributing to water pollution, or designed to prevent water pollution, of any type designated by Board regulations, without a permit granted by the Agency, or in violation of any conditions imposed by such permit;

(c) Increase the quantity or strength of any discharge of contaminants into the waters, or construct or install any sewer or sewage treatment facility or any new outlet for contaminants into the waters of this State, without a permit granted by the Agency;

(d) Deposit any contaminants upon the land in such place and manner so as to create a water pollution hazard;

(e) Sell, offer, or use any article in any area in which the Board has by regulation forbidden its sale, offer, or use for reasons of water pollution control:

(f) Cause, threaten or allow the discharge of any contaminant into the waters of the State, as defined herein, including but not limited to, water to any sewage works, or into any well or from any point source within the State, without an NPDES permit for point source discharges issued by the Agency under Section 39(b) of this Act, or in violation of any term or condition imposed by such permit, or in violation of any NPDES permit filing requirement established under Section 39(b),[1] or in violation of any regulation adopted by the Board or of any order adopted by the Board with respect to the NPDES program.

No permit shall be required under this subsection and under Section 39(b) of this Act for any discharge for which a permit is not required under the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500) and regulations pursuant thereto.

For all purposes of this Act, a permit issued by the Administrator of the United States Environmental Protection Agency under Section 402 of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500)[2] shall be deemed to be a permit issued by the Agency pursuant to Section 39(b) of this Act. However, this shall not apply to the exclusion from the requirement of an operating permit provided under Section 13(b)(i).[3]

Compliance with the terms and conditions of any permit issued under Section 39(b) of this Act shall be deemed compliance with this subsection except that it shall not be deemed compliance with any standard or effluent limitation imposed for a toxic pollutant injurious to human health.

In any case where a permit has been timely applied for pursuant to Section 39(b) of this Act but final administrative disposition of such application has not been made, it shall not be a violation of this subsection to discharge without such permit unless the complainant proves that final administrative disposition has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. For purposes of this provision, until implementing requirements have been established by the Board and the Agency, all applications deemed filed with the Administrator of the United States Environmental Protection Agency pursuant to the provisions of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500)[4] shall be deemed filed with the Agency.

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§ 1042. Violation of Act, regulation, permit, determination or order—Civil penalties—Liability for value of fish or aquatic life—Civil actions—Actions by State's Attorney or Attorney General

(a) Any person that violates any provisions of this Act or any regulation adopted by the Board, or any permit or term or condition thereof, or that violates any determination or order of the Board pursuant to this Act, shall be liable to a civil penalty of not to exceed $10,000 for said violation and an additional civil penalty of not to exceed $1,000 for each day during which violation continues;

However, any person that violates Section 12(f) of this Act[1] or any NPDES permit or term or condition thereof, or any filing requirement, regulation or order relating to the NPDES permit program shall be liable to a civil penalty of not to exceed $10,000 per day of violation;

(b) Any person that violates this Act, or an order or other determination of the Board under this Act and causes the death of fish or aquatic life shall, in addition to the other penalties provided by this Act, be liable to pay to the State an additional sum for the reasonable value of the fish or aquatic life destroyed. Any money so recovered shall be placed in the Game and Fish Fund in the State Treasury;

(c) The penalties provided for in this section may be recovered in a civil action.

(d) The State's Attorney of the county in which the violation occurred, or the Attorney General, may, at the request of the Agency or on his own motion, institute a civil action for an injunction to restrain violations of this Act.

(e) The State's Attorney of the county in which the violation occurred, or the Attorney General, shall bring such actions in the name of the people of the State of Illinois.

§ 1043. Injunctions or other necessary actions ✓

(a) In circumstances of substantial danger to the environment or to the public health of persons or to the welfare of persons where such danger is to the livelihood of such persons, the State's Attorney or Attorney General, upon request of the Agency or on his own motion, may institute a civil action for an immediate injunction to halt any discharge or other activity causing or contributing to the danger or to require such other action as may be necessary. The court may issue an ex parte order and shall schedule a hearing on the matter not later than 3 working days from the date of injunction.

(b) If any term or condition of an NPDES permit issued under this Act for discharges from a publicly owned or publicly regulated sewage works is violated, the use of the sewage works by a contaminant source not using the works prior to a finding that the condition was violated:

(i) may be prohibited by the public body owning or regulating such sewage works, pursuant to State law or local ordinance; or

(ii) may be prohibited or restricted under the provisions of Title VIII of this Act; or

(iii) the State's Attorney of the county in which the violation occurred, or the Attorney General, at the request of the Agency or on his own motion, may proceed in a court of competent jurisdiction to secure such relief.

(c) If an industrial user of a publicly owned or publicy regulated sewage works is not in compliance with a system of user charges required under State law or local ordinance or regulations or as a term or condition of any NPDES permit issued under this Act to the sewage works into which the user is discharging contaminants, the system of charges may be enforced directly against the industrial user—

(i) by the public body owning or regulating such sewage works, pursuant to State law or local ordinance; or

(ii) under the provisions of Title VIII of this Act; or

(iii) the State's Attorney of the county in which the violation occurred, or the Attorney General, at the request of the Agency or on his own motion, may proceed in a court of competent jurisdiction to secure such relief.

§ 1044. Violations of Act, regulations or permits—Punishment—Contamination of waters—False statements or representations—Negligent contamination — Corporations — Venue — procedure

(a) It shall be a Class A misdemeanor to violate this Act or regulations thereunder, or any permit or term or condition thereof, or knowingly to submit any false information under this Act or regulations adopted thereunder, or under any permit or term or condition thereof. It shall be the duty of all State and local law-enforcement officers to enforce such Act and regulations, and all such officers shall have authority to issue citations for such violations.

(b) Notwithstanding the provisions of subsection (a) of this Section, it shall be a criminal offense for any person knowingly to violate subsection (f) of Section 12 of this Act[1] or any provision of any regulation, standard or filing requirement adopted under Section 13(b) or Section 39(b) of this Act,[2] or any NPDES permit issued under this Act, or term or condition thereof. Any person that is convicted of such violation shall be fined not more than $25,000 per day of violation. In addition to any fines, an individual convicted of such violation may be sentenced to a term of imprisonment not to exceed one year.

(c) Notwithstanding the provisions of subsection (a) of this Section, it shall be a criminal offense for any person to knowingly make any false statement, representation or certification in an application for, or form pertaining to, an NPDES permit, or in a notice or report required by the terms of such permit, or to knowingly render inaccurate any monitoring device or record required by the Agency or Board in connection with any such permit or with any discharge which is subject to the provisions of subsection (f) of Section 12 of this Act. Any person that is convicted of such violation shall be fined not more than $10,000. In addition to any fine, an individual convicted of such violation may be sentenced to a term of imprisonment not to exceed six months.

(d) Notwithstanding the provisions of subsection (a) of this Section, it shall be a business offense for any person negligently to violate subsection (f) of Section 12 of this Act or any provision of any regulation, standard or filing requirement adopted under Section 13(b) or Section 39(b) of this Act, or any NPDES permit issued under this Act, or any term or condition thereof. Any person that is convicted of such violation shall be fined not more than $25,000 per day of violation.

(e) A corporation shall be held responsible for any offenses described in this section if

(i) an agent of the corporation performs the conduct which is an element of the offense while acting within the scope of his office or employment and in behalf of the corporation; or

(ii) the commission of the offense is authorized, requested, commanded or performed by the board of directors or a high managerial agent who is acting within the scope of his employment in behalf of the corporation.

A corporation's proof that the high managerial agent having supervisory responsibility over the conduct which is the subject matter of the offense exercised due diligence to prevent the commission of the offense shall not be a defense available to the corporation.

(f) For the purposes of this Section, the term "person" shall include, in addition to the definition contained in Section 3(j) of this Act,[3] any person legally accountable under the provisions of Article 5 of the Criminal Code of 1961, adopted July 28, 1961, as amended.[4]

(g) Any action brought under this Section shall be brought by the State's Attorney of the county in which the violation occurred, or by the Attorney General, and shall be conducted in accordance with the applicable provisions of the Code of Criminal Procedure of 1963, adopted August 14, 1963, as amended.[5]

Ind. Stat. Ann. (Burns 1974).[1]

13-1-3-16 [68-532]. Terms defined.—Wherever the word "person" is used in this act [13-1-3-1—13-1-3-18], it shall be construed to mean and include person, persons, firm, partnership, corporation, municipal corporation, association and any and all other legal entities, whatsoever. Wherever the words "water" or "waters" shall be used in this act, they shall be construed to mean and include lakes, rivers, streams, drainage ditches, roadside ditches, underground water and any and all other surface and subsurface watercourses, underground reservoirs and basins within the jurisdiction of this state: Provided, That the term "water or waters" shall not mean any privately-owned pond: Provided further, That the provisions of this amendatory act shall in no way affect the administration and enforcement of the drainage and ditch laws of this state. [Acts 1943, ch. 214, § 16, p. 624; 1957, ch. 64, § 2, p. 117.]

13-1-3-7 [68-523]. Polluted condition of water—Regulations and orders.—The stream pollution control board shall have the power to determine what qualities and properties of water shall indicate a polluted condition of such water, in any of the streams or waters of this state, that shall be deleterious to the public health or to the prosecution of any industry or lawful occupation for which or in which any such waters may be lawfully used or employed, or whereby the carrying on of any agricultural, floricultural or horticultural pursuit may be or shall be injuriously affected, or whereby the lawful conduct of any livestock industry, or the use of any such waters for domestic animals may be prevented, injuriously affected or impaired, or whereby any lawful use of any such waters by the state of Indiana, or by any political subdivision, corporation, municipal corporation, association, partnership, person, or any other legal entity, may be lessened or impaired or materially interfered with, or whereby any fish life or any beneficial animal or vegetable life in said waters may be destroyed, or the growth or propagation thereof prevented or injuriously affected. Any such determination made by the said stream pollution control board as above provided, shall be filed of record in the office of the stream pollution control board. The stream pollution control board shall have the power to make regulations and orders restricting the polluting content of any waste material and polluting substances discharged or sought to be discharged into any of the streams or waters of this state. The stream pollution control board shall have the power to take appropriate steps to prevent any pollution which shall be deemed by the stream pollution control board to be unreasonable and against public interests, in view of the existing condition in any stream or other waters of this state. [Acts 1943, ch. 214, § 7, p. 624.]

13-1-3-5 [68-521]. Enforcement powers.—The stream pollution control board shall have the power to bring any appropriate action in law or in equity in the name of the state of Indiana as may be necessary to carry out the provisions of this act [13-1-3-1—13-1-3-18], and to enforce any and all laws and orders relating to the pollution of waters of this state, as hereinafter provided. Said board shall have the power, after hearing as hereinbelow set out, to order any person, corporation, municipal corporation, partnership or legal entity to acquire, construct, repair, alter or extend such plants as may be necessary for the disposal or treatment of organic and/or inorganic matter which is causing, or contributing to, or about to cause or contribute to a polluted condition of the waters of this state. It shall have the power to require the sealing of mines, oil and gas wells, brine wells or any other subterranean strata causing, contributing or about to cause or contribute to a polluted condition of the waters of this state. [Acts 1943, ch. 214, § 5, p. 624.]

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[1] These statutory provision appear out of numerical sequence in order to set them out in a way similar to other states in this Appendix

13-1-3-8 [68-524]. Causing or contributing to polluted condition.—It shall be unlawful for any corporation, municipal corporation, association, partnership, person or any other legal entity to throw, run, drain, or otherwise dispose into any of the streams or waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise disposed into such waters, any organic or inorganic matter that shall cause or contribute to a polluted condition of such waters, according to any determination of the stream pollution control board, as provided for in section 7 [13-1-3-7] of this act, determining what shall constitute a polluted condition of such waters that shall be deleterious to the public health or to the prosecution of any industry or lawful occupation for which or in which any such waters may be lawfully used or employed, or whereby the carrying on of any agricultural, floricultural or horticultural pursuit may or shall be adversely affected, or whereby the lawful conduct of any livestock industry or the use of any such waters by or for domestic animals, may be prevented, injuriously affected or impaired, or whereby any lawful use of such waters by the state of Indiana or any political subdivision, corporation, municipal corporation, association, partnership, person, or any other legal entity, may be lessened or impaired or materially interfered with, or whereby any fish life or any beneficial animal or vegetable life in said waters may be destroyed, or the growth or propagation thereof prevented or injuriously affected. [Acts 1943, ch. 214, § 8, p. 624.]

13-1-3-9 [68-525]. Order to cease violation — Conditions — Report from offender—Provisos.—Whenever the stream pollution control board shall determine that any corporation, municipal corporation, association, partnership, person, or any other legal entity, is violating, or is about to violate, the provisions of section 8 [13-1-3-8] of this act, the stream pollution control board shall serve notice on the alleged offender by registered mail, of its determination of the fact of such violation, and shall include in such notice an order against such offender to cease such violation and to abate such condition of pollution, fixing in such notice and order a reasonable time within which such correction and abatement shall be accomplished.

* * *

13-1-3-14 [68-530]. Failure to comply with final order—Misdemeanor—Penalty.—It shall be the duty of each individual offender, and of each member of partnership, and of each member of the common council or board of town trustees of a municipal corporation, and of each member of the board of directors or other governing body of a private corporation, association or other legal entity, against whom a final order has been issued, as herein provided, to begin appropriate action or proceedings to comply with such order, within thirty [30] days from the receipt thereof, if no action has been commenced in the circuit or superior court of the county where such violation is alleged to exist to set aside or vacate such order as provided in this act [13-1-3-1—13-1-3-18], or, in case such action has been brought, within thirty [30] days from the date of judgment affirming such order, or from the date of receipt of such order, as modified in conformity with the judgment of such court. Failure of the common council or board of town trustees, in the case of a municipal corporation, or of the board of directors or other governing body of any private corporation, association or other legal entity, to provide for the financing and construction of such works as may be necessary to carry out said order by appropriate ordinance or resolution, shall constitute failure to begin appropriate action or proceedings to comply with such order, as above provided. Any individual offender, or any member of a partnership, or any officer or member of the board of directors of a private corporation, association or other legal entity, or any mayor, councilman, town trustee or member of a board of public works and safety, of any municipal corporation, who fails or refuses to discharge any duty imposed upon him by this act or by such final order of the stream pollution control board, or any duty imposed upon him by reason of any ordinance of the common council or board of trustees of any municipal corporation, or resolution of the board of directors or other governing body of any private corporation, association or other legal entity, pursuant to this act or to such final order, may be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in any sum not less than twenty-five dollars [$25.00] and not more than one hundred dollars [$100], to which may be added imprisonment in the county jail for any period not to exceed ninety [90] days. [Acts 1943, ch. 214, § 14, p. 624.]

13-1-3-15 [68-531]. **Extension of time fixed in final order—Conditions—Process for recovery — Penalties recovered paid into common school fund of state.**—The stream pollution control board shall have the authority, in its discretion, to extend the time fixed in any final order issued by it, within which any offender is ordered to correct or abate a condition of pollution of any water or waters, upon written petition filed with such department not less than thirty [30] days prior to the time fixed in such order, when it shall appear that a good faith effort to comply with said order is being made, and that it will be impossible for such offender to complete the project of work undertaken within the time so fixed. Any person, corporation, municipal corporation, partnership, association or other legal entity, who shall fail or refuse to correct or abate such polluted condition in compliance with such order within the time fixed or within the time additionally granted as herein provided, shall be subject to a penalty of one hundred dollars [$100] for each day that such polluted condition continues to exist after the time so fixed, or as additionally granted, which may be recovered in a civil suit brought in the name of the state of Indiana, and which penalty shall be in addition to the penalties provided in section 14 [13-1-3-14] of this act. It shall be the duty of the attorney-general to prosecute all actions for penalties under this section, and all penalties so recovered shall be paid into the common school fund of the state. The penalties accruing for any two [2] or more days under the provisions of this section may be recovered in one [1] complaint and may be joined in one [1] paragraph of said complaint: Provided, however, That no order of the stream pollution control board shall be enforceable in cases where material, supplies and labor are unavailable. [Acts 1943, ch. 214, § 15, p. 624.]

455B.30 Definitions

When used in part 1 of division III, unless the context otherwise requires:

1. "Sewage" means the water-carried waste products from residences, public buildings, institutions, or other buildings, including the bodily discharges from human beings or animals together with such ground water infiltration and surface water as may be present.

2. "Industrial waste" means any liquid, gaseous, radioactive, or solid waste substance resulting from any process of industry, manufacturing, trade or business or from the development of any natural resource.

3. "Other waste" means garbage, municipal refuse, lime, sand, ashes, offal, oil, tar, chemicals and all other substances which are not sewage or industrial waste which may pollute the waters of the state.

4. "Water pollution" means the contamination of any water of the state so as to create a nuisance or render such water unclean, noxious or impure so as to be actually harmful, detrimental or injurious to public health, safety or welfare, to domestic, commercial, industrial, agricultural or recreational use or to livestock, wild animals, birds, fish or other aquatic life.

5. "Sewer system" means pipe lines or conduits, pumping stations, force mains and all other constructions, devices and appliances appurtenant thereto used for conducting sewage or industrial waste or other wastes to a point of ultimate disposal.

6. "Treatment works" means any plant, disposal field, lagoon, holding or flow-regulating basin, pumping station, or other works installed for the purpose of treating, stabilizing or disposing of sewage, industrial waste or other wastes.

7. "Disposal system" means a system for disposing of sewage, industrial waste and other wastes and includes sewer systems, treatment works, and dispersal systems.

8. "Detergent" means a cleaning compound composed of inorganic components, including surface active agents, soaps, water softening agents, builders, dispersing agents, corrosion inhibitors, foaming agents, buffering agents, brighteners, fabric softeners, dyes, perfumes, enzymes, and fillers, which are available for household, personal, laundry, industrial, and other uses in liquid, bar, spray, tablet, flake, powder, or other form.

9. "Water of the state" means any stream, lake, pond, marsh, watercourse, waterway, well, spring, reservoir, aquifer, irrigation system, drainage system and any other body or accumulation of water, surface or underground, natural or artificial, public or private, which are contained within, flow through or border upon the state or any portion thereof.

10. "Person" means the state or any agency or institution thereof, any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity and includes any officer or governing or managing body of any municipality, governmental subdivision or public or private corporation.

* * *

455B.35 Criteria considered

In establishing, modifying, or repealing quality standards for the water of the state, or in establishing, modifying, or repealing effluent standards for disposal systems, the commission shall consider:

1. The protection of the public health;
2. The size, depth, surface area covered, volume, direction and rate of flow, stream gradient, and temperature of the affected water of the state;
3. The character and uses of the land area bordering the affected water of the state;
4. The uses which have been made, are being made, or may be made of the affected water of the state for public, private, or domestic water supplies; irrigation; livestock watering; propagation of wildlife, fish, and other aquatic life; bathing, swimming, boating, or other recreational activity; transportation; and disposal of sewage and wastes;
5. The extent of contamination resulting from natural causes including the mineral and chemical characteristics;

6. The extent to which floatable or settleable solids may be permitted;

7. The extent to which suspended solids, colloids, or a combination of solids with other suspended substances may be permitted;

8. The extent to which bacteria and other biological organisms may be permitted;

9. The amount of dissolved oxygen that is to be present and the extent of the oxygen demanding substances which may be permitted;

10. The extent to which toxic substances, chemicals or deleterious conditions may be permitted.

455B.43 Injunction

Any person, firm, corporation, municipality, or any officer or agent thereof causing water pollution as defined in section 455B.30 of any waters of the state or placing or causing to be placed any sewage, industrial waste, or other wastes in a location where they will probably cause pollution of any waters of the state may be enjoined from continuing such action.

The attorney general shall, upon the request of the department, bring an action for an injunction against any person, firm, corporation, municipality, or agent thereof violating the provisions of this section. In any such action, any previous findings of the department after due notice and hearing shall be prima-facie evidence of the fact or facts found therein.
Acts 1972 (64 G.A.) ch. 1119, § 44, eff. Jan. 1, 1973.

455B.44 Failure constitutes contempt

Failure to obey any order issued by the department with reference to matters pertaining to the pollution of water of the state shall constitute prima-facie evidence of contempt. In such event the department may certify to the district court of the county in which such alleged disobedience occurred the fact of such failure. The district court after notice, as prescribed by the court, to the parties in interest shall then proceed to hear the matter and if it finds that the order was lawful and reasonable it shall order the party to comply with the order. If the person fails to comply with the court order, he shall be guilty of contempt and shall be fined not to exceed five hundred dollars for each day that he fails to comply with the court order. The penalties provided in this section shall be considered as additional to any penalty which may be imposed under the law relative to nuisances or any other statute relating to the pollution of waters of the state and a conviction under this section shall not be a bar to prosecution under any other penal statute.
Acts 1972 (64 G.A.) ch. 1119, § 45, eff. Jan. 1, 1973.

455B.49 Penalties—burden of proof

1. Any person who violates any provision of part 1 of division III of this chapter or any permit, rule, standard, or order issued under part 1 of division III of this chapter shall be subject to a civil penalty not to exceed five thousand dollars for each day of such violation. The civil penalty shall be an alternative to any criminal penalty provided under part 1 of division III of this chapter.

2. Any person who willfully or negligently discharges any pollutants in violation of section 455B.45 or in violation of any condition or limitation included in any permit issued under section 455B.45 of the Code or, with respect to the introduction of pollutants into publicly owned treatment works, violates a pretreatment standard or toxic effluent standard, shall be punished by a fine not to exceed ten thousand dollars for each day of violation. If the conviction is for a violation committed by a person after his first conviction under this section, the punishment shall be a fine not to exceed twenty thousand dollars for each day of violation.

3. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under part 1 of division III of this chapter, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under part 1 of division III of this chapter or by any permit, rule, regulation, or order issued under part 1 of division III of this chapter, shall upon conviction be punished by a fine or not more than ten thousand dollars or by imprisonment in the county jail for not more than six months or by both such fine and imprisonment.

4. The attorney general shall, at the request of the commission or the executive director, institute any legal proceedings necessary to enforce the penalty provisions of part 1 of division III of this chapter or to obtain compliance with the provisions of part 1 of division III of this chapter or any rules promulgated or any provision of any permit issued under part 1 of division III of this chapter.

5. In all proceedings with respect to any alleged violation of the provisions of this part 1 of division III or any rule established by the commission or the department, the burden of proof shall be upon the commission or the department except in an action for contempt as provided in section 455B.44.

Acts 1972 (64 G.A.) ch. 1119, § 50, eff. Jan. 1, 1973. Amended by Acts 1973 (65 G.A.) ch. 261, § 5, eff. Aug. 15, 1973.

65-164. Sewage; definition; complaints and investigations as to pollution; appeal. That no person, company, corporation, institution or municipality shall place or permit to be placed or discharge or permit to flow into any of the waters of the state any sewage, except as hereinafter provided. But this act shall not prevent the discharge of sewage from any public sewer system owned and maintained by a municipality or sewerage company, provided such sewer system was in operation and was discharging sewage into the waters of the state on the twentieth day of March, 1907; but this exception shall not permit the discharge of sewage from any sewer system that shall have been extended subsequent to the aforesaid date, nor shall it permit the discharge of any sewage which, upon investigation by the secretary of health and environment, as hereinafter provided, shall be found to be polluting the waters of the state in a manner prejudicial to the health of the inhabitants thereof.

For the purposes of this act, sewage is hereby defined as any substance that contains any of the waste products or excrementitious or other discharges from the bodies of human beings or animals, or chemical or other wastes from domestic, manufacturing or other forms of industry.

Whenever complaint shall be made to the secretary of health and environment by the mayor of any city of the state, or by a county health officer, or by a local board of health, of the pollution or of the polluted condition of any of the waters of the state situated within the county within which the said city or health officer or local board of health is located, it shall be the duty of the secretary of health and environment to make an investigation covering the pollution or the polluted condition concerning which complaint is made. Also, whenever the secretary of health and environment shall have reason to believe that any of the waters of the state are being polluted in a manner prejudicial to the health of any of the inhabitants of the state, it may upon its own motion investigate such pollution.

Whenever an investigation shall be undertaken by the secretary of health and environment, under either of the foregoing provisions, it shall be the duty of any person, company, corporation, institution or municipality concerned in such pollution to furnish, on demand, to the secretary of health and environment such information as may be required relative to the amount and character of the polluting material discharged into the said waters by such person, company, corporation, institution or muncipality. And if the secretary of health and environment shall find that any of the waters of the state have been or are being polluted in a manner prejudicial to the health of any of the inhabitants of the state, the secretary of health and environment shall have the authority to make an order requiring such pollution to cease within a reasonable time, or requiring such manner of treatment or of disposition of the sewage or other polluting material as may in his judgment be necessary to prevent the future pollution of such waters, or both. It shall be the duty of the person, company, corporation, institution or municipality to whom such order is directed to fully comply with the said order of the secretary of health and environment.

If the person, company, corporation, institution or municipality shall consider the requirements of the said order to be illegal or unjust or unreasonable, it may, within thirty (30) days after the making of the said order, appeal therefrom to the district court of the county in which the pollution or polluted condition occurs; and the said court shall hear the said case without delay, and shall render a decision approving, setting aside or modifying the said order, or fixing the terms upon which said permit shall be granted, and stating the reasons therefor. [K. S. A. 65-164; L. 1974, ch. 352, § 25; July 1.]

65-167. Sewage discharge; penalties for willful or negligent discharge of sewage without permit or in violation of terms of permit. Upon conviction, the penalty for the willful or negligent discharge of sewage from the sewer system of any municipality, township, county, or legally constituted sewer district by the public authorities having by law charge thereof or by any person, company, corporation, institution, municipality, or federal agency, into any of the waters of the state without a duly issued permit, as required in this act, or in violation of any term or condition of a permit issued by the secretary of health and environment, or in violation of any requirements made pursuant to K. S. A. 65-164 or 65-166, or any amendments thereto, shall be not less than two thousand five hundred dollars ($2,500); and not more than twenty-five thousand dollars ($25,000), and a further penalty of not more than twenty-five thousand dollars ($25,000) per day for each day the offense is maintained. The penalty for the discharge of sewage from any sewage system into any waters of the state without filing a report, in any case in which a report is required by this act to be filed shall be one thousand dollars ($1,000) per day for each day the offense is maintained. [K. S. A. 65-167; L. 1973, ch. 242, § 1; L. 1974, ch. 352, § 29; July 1.]

65-171a. Stream pollution detrimental to animal or aquatic life. The authority of the secretary of health and environment in matters of stream pollution is hereby supplemented to include stream pollution found to be detrimental to public health or detrimental to the animal or aquatic life of the state. [K. S. A. 65-171a; L. 1974, ch. 352, § 36; July 1.]

65-171b. Same; abatement. It shall be the duty of the attorney general, on presentation by the secretary of health and environment of evidence of abatable pollution of the surface waters detrimental to the animal or aquatic life in the state, to take such action as may be necessary to secure the abatement of such pollution. [K. S. A. 65-171b; L. 1974, ch. 352, § 37; July 1.]

65-171f. Same; penalties for failure to comply with rules and regulations. Every public authority having by law the charge of the sewer system of any municipality, township, county or legally constituted sewer district or any person, company, corporation, institution, municipality or federal agency that shall willfully or negligently, fail to comply with the rules, regulations and orders of the secretary of health and environment authorized by K. S. A. 65-171d, as amended, shall be punished upon conviction by a fine of not less than twenty-five dollars ($25) and not more than ten thousand dollars ($10,000). Each day in which the failure to comply with such requirements and orders continues shall constitute a separate offense. [K. S. A. 65-171f; L. 1973, ch. 243, § 1; L. 1974, ch. 352, § 41; July 1.]

65-171d. Prevention of surface and subsurface water pollution; standards; "pollution" defined; permits; exemption; orders; hearings; appeals; fees. For the purpose of preventing surface and subsurface water pollution and soil pollution detrimental to public health or to the plant, animal and aquatic life of the state, and to protect beneficial uses of the waters of the state and to require the treatment of sewage predicated upon technologically based effluent limitations, the secretary of health and environment shall make such rules and regulations, including registration of potential sources of pollution, as may in its judgment be necessary to protect the waters of the state from pollution by oil, gas, salt water injection wells or underground storage reservoirs; to control the disposal, discharge or escape of sewage as defined in K. S. A. 65-164, by or from municipalities, corporations, companies, institutions, state agencies, federal agencies, or individuals and any plants, works, or facilities owned and/or operated by them; and to establish water quality standards for the waters of the state to protect their beneficial uses. The secretary of health and environment may adopt by reference any regulation relating to water quality and effluent standards promulgated by the federal government pursuant to the provisions of the federal water pollution control act and the 1972 amendments thereto, which the secretary is otherwise authorized by law to adopt. For the purposes of this act, including K. S. A. 65-161 through 65-171h, or any amendments thereto, pollution is hereby defined (*a*) as such contamination or other alteration of the physical, chemical or biological properties of any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to the plant, animal or aquatic life of the state or to other designated beneficial uses, or (*b*) as such discharge as will or is likely to exceed state effluent standards predicated upon technologically based effluent limitations. In making rules and regulations, the secretary of health and environment, taking into account the varying conditions that are probable for each source of sewage and its possible place of disposal, discharge, or escape, may provide for varying the control measures required in each case to those it finds to be necessary to prevent pollution. The storage or disposal of salt water, oil or refuse in surface ponds shall be prohibited unless a permit for such storage or disposal shall first be obtained from the secretary of health and environment, and such permit shall be considered as granted unless denied within ten (10) days. The secretary of health and environment is authorized to deny or revoke a permit for such storage or disposal in any case where he finds such storage is causing or likely to cause pollution: *Provided, however,* That where a fresh water reservoir or farm pond is privately owned and where complete ownership of land bordering the reservoir is under common private ownership, such fresh water reservoir or farm pond shall be exempt from water quality standards except as it relates to water discharge or seepage from the reservoir to waters of the state, either surface or groundwater, or as it relates to the public health of persons using the reservoir or pond or waters therefrom.

Whenever the secretary of health and environment or his duly authorized agents shall find that the waters of the state are not being protected from pollution by oil, gas, salt water injection wells, or underground storage reservoirs, or that storage or disposal of salt water, oil or refuse in any surface pond is causing or is likely to cause pollution of soil or waters of the state, the secretary or duly authorized agents designated by him, shall issue an order prohibiting the operation or use of such oil, gas, salt water injection well, underground storage reservoir, or surface pond; such order to take effect ten (10) days after service upon the owner, operator, contractor or agents thereof. Any person aggrieved by such order may within ten (10) days of service of the order request a hearing on the order.

Hearings may be conducted by the secretary or hearing officers appointed by the secretary. Such hearing officers shall have the power and authority to conduct such hearings in the name of the secretary at any time and place and a record of the proceedings of such hearings shall be taken and filed with the secretary together with findings of facts. On the basis of the evidence produced at the hearing, the secretary shall make findings of fact and conclusions of law and shall give written notice of such findings and conclusions to the alleged violator. The order of the secretary shall be final unless appealed to the courts within thirty (30) days after the order has been made.

Any notice, order or instrument issued by or with the authority of the secretary may be made by mailing a copy of the notice, order, or other instrument by registered or certified mail directly to the person affected at his last known post-office address as shown by the files or records of the secretary.

An appeal may be taken from any final order or final determination of the secretary by any person adversely affected, to the district court of the county of residence of the appellant. Notice of appeal from any such final order or determination shall be served on the secretary. Failure to serve such notice of appeal within thirty (30) days shall operate as a waiver of the right of appeal. Notice of appeal shall refer to the action of the secretary appealed from and shall specify the grounds for appeal. Copy of the original notice of appeal with proof of service on the secretary shall be filed by the appellant with the clerk of the court within ten (10) days of the service of the notice and thereupon the court shall have jurisdiction of the appeal. Service of a notice of appeal shall not operate as a stay of the secretary's order; however, the appellant has the right to apply to the secretary for a stay, which the secretary in his discretion may grant. Upon receipt by the secretary of the notice of appeal, he shall, within fifteen (15) days, file with the clerk of the district court a certified transcript of all files and proceedings relating to the order or decision appealed from. The review shall be conducted by the court without a jury and shall be *de novo,* except that in cases of alleged irregularities in procedure, testimony thereon may be taken in the court. The court may affirm the order or decision of the secretary, or may reverse or modify said order. Appeals may be taken to the supreme court from the order or decision of the district court in the same manner as in other civil cases. The secretary shall fix fees to cover the cost of services rendered under this act. [K. S. A. 65-171d; L. 1974, ch. 247, § 2; L. 1974, ch. 352, § 39; July 1.]

224.005 Definitions. ✓

As used in this chapter unless the context clearly indicates otherwise:

* * *

(7) "Department" means the department of environmental protection;

(8) "District" means an air pollution control district as provided for in KRS Chapter 77;

(9) "Person" means any individual, public or private corporation, political subdivision, government agency, municipality, copartnership, association, firm, trust, estate, or other entity whatsoever;

(10) "Seepage pit" means a dry well, leaching pit or any other cavity in the ground which receives the liquid discharge of a septic tank;

(11) "Septic tank" means a septic toilet, chemical closet and any other watertight enclosure used for storage and decomposition of human excrement and domestic wastes;

(12) "Sewage system" means individually or collectively those constructions or devices used for collecting, pumping, treating, and disposing of liquid or waterborne sewage, industrial wastes or other wastes;

(13) "Solid waste" means all putrescible and nonputrescible refuse in solid form. Solid waste includes but is not limited to garbage, rubbish, ashes, incinerator residue, street refuse, dead animals, demolition wastes, construction wastes, solid commercial and industrial wastes, and special wastes including explosives, pathological wastes and radioactive materials;

(14) "Solid waste disposal site or facility" means any place at which solid waste is disposed of by incineration, landfilling or any other method;

(15) "Tank" means any container when placed on a vehicle to carry in transport wastes removed from a septic tank, cesspool or seepage pit;

(16) "Water pollution" means the alteration of the physical, thermal, chemical, biological, or radioactive properties of the waters of the Commonwealth in such a manner, condition, or quantity that will be detrimental to the public health or welfare, to animal or aquatic life or marine life, to the use of such waters as present or future sources of public water supply or to the use of such waters for recreational, commercial, industrial, agricultural or other legitimate purposes;

(17) "Water" or "waters of the Commonwealth" means and includes any and all rivers, streams, creeks, lakes, ponds, impounding reservoirs, springs, wells, marshes and all other bodies of surface or underground water, natural or artificial, situated wholly or partly within or bordering upon the Commonwealth or within its jurisdiction.

224.020 Policy and purpose.

(1) It is hereby declared to be the policy of this Commonwealth to conserve the waters of the Commonwealth for public water supplies, for the propagation of fish and aquatic life, for fowl, animal wild life and arborous growth, and for agricultural, industrial, recreational and other legitimate uses; to provide a comprehensive program in the public interest for the prevention, abatement and control of pollution; to provide effective means for the execution and enforcement of such program; and to provide for cooperation with agencies of other states or of the Federal Government in carrying out these objectives.

(2) It is the purpose of KRS 221.010 to 224.060, 224.080 and 224.100 to safeguard from pollution the uncontaminated waters of the Commonwealth; to prevent the creation of any new pollution of the waters of the Commonwealth: and to abate any existing pollution.

224.033 Powers and duties of department.

In addition to any other powers and duties vested in it by law, the department shall have the authority, power, and duty to:

* * *

(15) Formulate guides for measuring presently unidentified environmental values and relationships so they can be given appropriate consideration along with social, economic, and technical considerations in decision making;

(16) Monitor the environment to afford more effective and efficient control practices, to identify changes and conditions in ecological systems and to warn of emergency conditions;

(17) Adopt, modify or repeal with the recommendation of the commission any standard, rule, regulation or plan specified in subsections (5) and (6) of KRS 224.045.

(18) Issue, after hearing, orders abating activities in violation of this chapter, or the provisions of 1972 1st ex. ses., H 3, or the regulations promulgated pursuant thereto and requiring the adoption of such remedial measures as the department may deem necessary;

(19) Issue, continue in effect, revoke, modify or deny under such conditions as the department may prescribe, permits for the discharge of any sewage, industrial wastes or other wastes, into any waters of the Commonwealth, and for the installation, alteration, expansion, or operation of any sewage system; the installation, alteration, or use of any machine, equipment, device or other article that may cause or contribute to air pollution or is intended primarily to prevent or control the emission of air pollution; or the establishment or construction and the operation or maintenance of solid waste disposal sites and facilities; and require that applications for such permits be accompanied by plans, specifications, and such other information as the department deems necessary;

(20) Require, by regulation, that any person engaged in any operation regulated pursuant to this chapter install, maintain, and use at such locations and intervals as the department may prescribe any equipment, device or method to monitor the nature and amount of any substance emitted or discharged into the ambient air or waters of the Commonwealth and to provide any information concerning such monitoring to the department in accordance with the provisions of subsection (21) of this section;

(21) Require by regulation that any person engaged in any operation regulated pursuant to this chapter file with the department reports containing information as to location, size, height, rate of emission or discharge, and composition of any substance discharged or emitted into the ambient air or into the waters of the Commonwealth, and such other information as the department may require; and

224.060 General prohibition against pollution.

No person shall, directly or indirectly, throw, drain, run or otherwise discharge into any of the waters of the Commonwealth, or cause, permit or suffer to be thrown, drained, run or otherwise discharged into such waters any sewage, industrial wastes or other wastes that shall cause or contribute to the pollution of the waters of the Commonwealth in contravention of the standards adopted by the department or in contravention of any of the rules, regulations or orders of the department or in contravention of any of the provisions of KRS Chapter 224.

224.992 Penalties for violation of KRS 224.220 to 224.237.

Any person who shall violate or refuse to comply with any of the provisions of KRS 224.220 to 224.237 shall be guilty of a misdemeanor punishable by a fine of not less than twenty-five dollars nor more than one hundred dollars and when such violation is of a continuing nature, each day upon which a violation occurs shall be deemed a separate offense. (1968 H 354, § 8. Eff. 6-13-68)

✓ 224.993 Penalties.

(1) Any person who violates any of the provisions of this chapter except as provided in KRS 224.992 or who fails to perform any duties imposed by those sections, or who violates any determination or order of the department promulgated pursuant thereto shall be liable to a civil penalty of not to exceed the sum of $1,000 for said violation, and an additional civil penalty of not to exceed $1,000 for each day during which such violation continues, and in addition, may be enjoined from continuing such violations as hereinafter provided in this section. Such penalties shall be recoverable in an action brought in the name of the Commonwealth of Kentucky by the attorney general.

(2) It shall be the duty of the attorney general, upon the request of the department, to bring an action for the recovery of the penalties hereinabove provided for, and to bring an action for an injunction against any person violating or threatening to violate any provision of this chapter except as provided in KRS 224.992 or violating or threatening to violate any order or determination of the department promulgated pursuant thereto. In any such action any finding of the department shall be prima facie evidence of the fact or facts found therein.

(3) Any person who shall willfully violate any of the provisions of this chapter except as provided in KRS 224.992 or any determination or order of the department promulgated pursuant to those sections which has become final shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than $100 nor more than $1,000 or by imprisonment for a term of not more than one year or by both fine and imprisonment for each separate violation. Each day upon which such violation occurs shall constitute a separate violation.

(4) The authority herein vested in the attorney general, upon request of the department, to bring actions for injunctions for violations of KRS Chapter 224 except as provided in KRS 224.992 or of any regulation, or order issued thereto, shall be exclusive. Nothing herein contained shall abridge the right of any person to recover actual compensatory damages resulting from any such violation.

§ 1440. Illegal discharge of waste

A. No person shall discharge or permit to be discharged into any of the waters of the state any waste or any pollution of any kind that will tend to destroy fish or other aquatic life or wild or domestic animals or fowls or be injurious to the public health or against the public welfare in violation of any rule, order, or regulation of the commission.

Whoever violates this Section shall be guilty of a violation of this Part.

B. No person, engaged in a logging operation shall discharge and leave or permit to be discharged and left into any of the navigable waters of the state any trees or treetops.

For the purposes of this section, the term "treetop" shall be defined as that topmost portion of a tree trunk, with limbs attached, measuring in excess of three inches at the base of the treetop stem.

C. Whoever violates Subsection (A) of this Section shall be guilty of a violation of this Part.

D. Notwithstanding the provisions of R.S. 56:1444 whoever violates Subsection (B) of this section shall be fined one hundred dollars for each tree or treetop.

§ 1444. Penalty for violation of Part; attorney general to prosecute

Whoever violates any of the provisions of this Part, or any written order of the commission in pursuance thereof, shall be fined not less than one hundred dollars nor more than two thousand dollars, and costs of prosecution, or imprisoned for not more than one year, or both. Each day upon which a violation of the provisions of this Part occurs is a separate and additional violation. The attorney general shall have charge of and shall prosecute all cases arising out of violation of the provisions of this Part, including the recovery of penalties.

§ 1446. Pollution of waters; recovery of civil damages; attorney general to institute action; jurisdiction in district courts

A. Whenever any person without a certificate of approval, permit or other document of approval authorized by law, or in violation of the terms and conditions of such certificate of approval, permit, or other document of approval authorized by law, has negligently, carelessly or wilfully caused pollution of the waters of the state in such concentration or manner that wild birds, wild quadrupeds, fish or other aquatic life are killed as the result thereof, or renders the water unfit for maintenance of the normal fish or aquatic life characteristics of the waters or renders the water unfit for the usages which have been established for the stream or other water body by the commission, the commission may recover, in the name of the state, damages from such person.

B. The commission shall notify the person or persons responsible of the amount of damages claimed by the commission and may effect such settlements as it deems reasonable. If no settlement is reached within sixty days the attorney general shall bring a civil action in the name of the state to recover the damages, in either the district court of the parish in which the damage has occurred or the district court of the parish in which the State Capitol is located. The district courts shall have jurisdiction to hear and determine such actions.

C. The measure of damages shall be the amount determined by the court to be the replacement cost thereof or the cost of restoring the stream or other water body to its former condition plus the cost of all reasonable and necessary investigations made or caused to be made by the state in connection therewith.

D. No civil proceeding brought under this section shall limit or prevent any other actions or proceedings in respect to the pollution of waters which are authorized by this Part or other provisions of law.

E. The provisions of this Part shall not apply to any unintentional pollution or contamination resulting from or in connection with the production of agricultural products.

§ 1461. Definition

"Water pollution" includes the introduction into state water bodies of any substance in concentration which results in the killing of fish or other aquatic life in numbers or in a manner materially detrimental to the interests of the state or renders the water unfit for maintenance of the normal fish or aquatic life characteristics of the waters, or in any way adversely affects the interests of the state in respect to its fish or other aquatic life.

§ 1462. Pollution of waters; discharge of injurious substance

In order to prevent the pollution of any stream or other water body of the state, the killing of fish or other aquatic life, or the modification of natural conditions in any way detrimental to the interests of the state, no person shall knowingly discharge or knowingly permit to be discharged into any waters of the state, or into drains which discharge into such waters, any substance which causes "Water Pollution" as defined in R.S. 56:1461; provided, however, that the provisions of this Part shall not apply to any unintentional pollution or contamination resulting from or in connection with the production of agricultural products. Each separate day upon which a violation of this section occurs constitutes a separate offense.

§ 1463. Penalty for violation of Part

Whoever intentionally violates any of the provisions of this Part shall be fined for each offense not less than one hundred dollars nor more than two thousand dollars or imprisonment for not more than one hundred twenty days or both.

§ 1464.1 Prohibition

No person in this state shall wilfully and intentionally discharge or cause to be discharged any untreated wastes into any body of public water in this state provided further that at all times all such wastes will receive the best practicable secondary treatment or its equivalent, not later than December 31, 1972. Persons discharging untreated wastes in any body of public water of the state on June 1, 1970 shall have until December 1, 1972 in which to construct treatment works without being subject to the ten thousand dollars per day civil penalty provided by this part. The date for compliance herewith may be extended from December 31, 1972 by the Louisiana State Board of Health or the Louisiana Stream Control Commission (acting in cases pertinent to their respective functions) in cases where there is a certification by the board of health or the stream control commission (acting in cases pertinent to their respective functions) that reasonable progress is made in the circumstances in abating a discharge existing on June 1, 1970. If technology of control does not provide methodology, such advance treatment will be provided as soon as this methodology is developed. No portion of Sections 1464 through 1464.4 of Title 56 of the Louisiana Revised Statutes of 1950, as amended, shall apply to the discharge of salt water or other wastes produced in the course of operations for the exploration for, or production of, oil, gas, or other minerals; but the discharge of such salt water or other wastes shall remain subject to all other applicable Louisiana laws and regulations.

Notwithstanding anything herein contained to the contrary, the provisions of this Section shall not apply to any unintentional pollution or contamination resulting from or in connection with the production of agricultural products. Acts 1970, No. 499, § 2. Amended by Acts 1972, No. 157, § 1.

§ 1464.2 Enforcement; civil penalty

Whenever, upon the sworn complaint of any person, it is made to appear to a district court of this state that a violation of this Part has occurred or may be occurring, the district court shall immediately order a hearing on the complaint to be held not less than two nor more than five days from the date of the order. A copy of the order shall be served on the alleged violator. If, at the hearing on the order, it appears to the satisfaction of the court that a violation has occurred, or is occurring, the court may assess a civil penalty not to exceed ten thousand dollars for each day during which the violation has occurred and all costs of the hearing. Where the violation is found to be continuing, the court also may issue a preliminary injunction restraining the violation. The judgment of the court at the hearing, or subsequently on a petition for fixing the penalty if the violation is a continuing one, shall fix the total amount of the penalty due, which shall be collectible under the same procedures as now fixed by law for the collection of money judgments.

Md. Code Ann. (1973), as amended, (Supp. 1974)

§ 8-101. Definitions.

(a) *Generally.* — In this title, the following words have the meanings indicated:

* * *

(h) *"Person"* includes the state, any county, municipal corporation, or other political subdivision of the state, or any of their units, or an individual, receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind, or any partnership, firm, association, public or private corporation, or any other entity.

(i) *"Pollution"* means every contamination or other alteration of the physical, chemical, or biological properties, of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or the discharge or deposit of any organic matter, harmful organism, liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will render the waters harmful, detrimental, or injurious to public health, safety, or welfare, domestic, commercial, industrial, agricultural, recreational, other legitimate beneficial uses, or livestock, wild animals, birds, fish or other aquatic life.

* * *

(k) *"Waters of the state"* includes both surface and underground waters within the boundaries of the state subject to its jurisdiction, including that portion of the Atlantic Ocean within the boundaries of the state, the Chesapeake Bay and its tributaries, and all ponds, lakes, rivers, streams, public ditches, tax ditches, and public drainage systems within the state, other than those designed and used to collect, convey, or dispose of sanitary sewage. The flood plain of free-flowing waters determined by the department on the basis of the 50-year flood frequency is included as waters of the state.

§ 8-1401. Definitions.

(a) *Generally.* — In this subtitle, the following words have the meanings indicated.

(b) *"Discharge"* means the addition, introduction, leaking, spilling, or emitting any pollutant to state waters or the placing of any pollutant in a location where it is likely to pollute.

(c) *"Disposal system"* means a system for disposing of wastes, either by surface, above surface or underground methods, and includes treatment works, disposal wells, and other systems.

(d) *"Effluent limitations"* means any restrictions or prohibitions established under state or federal law including but not limited to parameters for toxic and nontoxic discharges, standards of performance for new sources, or ocean discharge criteria. The restrictions or prohibitions shall specify quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged into state waters.

(e) *"Industrial user"* means any person engaged in the manufacture, fabrication, assemblage and such other classes of significant producers of pollutants identified under regulations issued by the Secretary of Natural Resources or by the Administrator of the United States Environmental Protection Agency.

(f) *"National pollutant discharge elimination system"* shall mean the national system for the issuance of permits as designated by the 1972 amendments to Federal Water Pollution Control Act.

(g) *"Permit"* means a permit to discharge pollutants into waters of the state issued under this subtitle.

(h) *"Pollutant"* means any wastes or wastewaters discharged from any publicly owned treatment works or industrial source and all other liquid, gaseous, solid or other substances which will pollute any waters of the state.

* * *

(k) *"Water quality criteria"* means any criteria describing the required quality of state waters adopted under state and federal law.

(l) *"Water quality standards"* means any water quality standards adopted and effective under state and federal law.

§ 8-1402. Declaration of public policy.

Because the quality of the waters of this state is vital to the public and private interests of its citizens and because pollution constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish and aquatic life, and impairs domestic, agricultural, industrial, recreational, and other legitimate beneficial uses of water, and the problem of water pollution in this state is closely related to the problem of water pollution in adjoining states, it is state public policy to improve, conserve, and manage the quality of the waters of the state and protect, maintain, and improve the quality of water for public supplies, propagation of wildlife, fish and aquatic life, and domestic, agricultural, industrial, recreational, and other legitimate beneficial uses. Also, it is state public policy to provide that no waste is discharged into any waters of this state without first receiving necessary treatment or other corrective action to protect the legitimate beneficial uses of this state's waters, and provide for prevention, abatement, and control of new or existing water pollution. The department shall cooperate with the agencies of other states and the federal government in carrying out these objectives. (An. Code 1957, art. 96A, § 23; 1973, 1st Sp. Sess., ch. 4, § 1.)

§ 8-1403. Construction and purpose of subtitle; remedies additional and cumulative.

This subtitle may not be construed as repealing any state law relating to water pollution or conservation. This subtitle is supplementary to those laws, except to the extent that the provisions are in direct conflict with one another.

It is the purpose of this subtitle to provide additional and cumulative remedies to prevent, abate, and control the pollution of the waters of the state. This subtitle may not be construed to abridge or alter rights of action or remedies in equity under existing common law, statutory law, criminal or civil, nor may any provision of this subtitle, or any act done pursuant to it, be construed as estopping any person, as riparian owner or otherwise, in the exercise of his rights in equity, under the common law, or statutory law to suppress nuisances or abate pollution. (An. Code 1957, art. 96A, § 28B; 1973, 1st Sp. Sess., ch. 4, § 1.)

§ 8-1405. Powers and duties of administration generally.

(a) *In general.* — The administration shall have and may exercise the following powers and duties:

* * *

(7) Adopt, modify, repeal, and promulgate water quality standards for the waters of the state, and effluent standards for waters discharged into the waters of the state;

(8) Adopt, modify, repeal, and promulgate, after due notice and hearing, and enforce rules and regulations implementing or effectuating its powers and duties;

(9) Issue, modify, or revoke orders and permits prohibiting discharges of pollutants into the waters of the state or require construction, modification, extension, or alteration of new or existing disposal systems or treatment works or parts of them or the adoption of other reasonable remedial measures to prevent, control, or abate pollution or undesirable changes in the quality of the waters of the state;

* * *

(b) ***Water quality and effluent standards and rules and regulations.*** — The administration may set water quality and effluent standards applicable to the waters of the state or portions of it. The standards shall protect public health, safety, and welfare and the present and future use of the waters for public water supply, the propagation of fish and other aquatic life and wildlife, recreational purposes, and agricultural, industrial, and other legitimate uses. All standards may be amended from time to time by the administration and shall include but not be limited to:

(1) Water quality standards, specifying, among other things, the maximum short-term and long-term concentrations of pollutants in the water, minimum permissible concentrations of dissolved oxygen and other desirable matter in the water and the temperature range for the water;

(2) Effluent standards specifying the maximum loading or concentrations and the physical, thermal, chemical, biological, and radioactive properties of wastes which may be discharged into the waters; standards shall be at least as stringent as those specified by the national pollutant discharge elimination system;

(3) Rules and regulations defining technique for filling and sealing of abandoned water wells and holes, for disposal wells, for mines both deep and surface, and for landfills to prevent groundwater contamination, seepage, and drainage into the waters of the state;

(4) Rules and regulations regarding the sale, offer, use or storage of

pesticides, and other articles which constitute a water pollution hazard in the determination of the administration;

(5) Rules and regulations outlining the procedures for water pollution episodes or emergencies which constitute an acute danger to health or the environment;

(6) Rules and regulations prescribing method, facilities, standards, and devices for transfer, storage, separation, removal, treatment, and disposal of oil and other unctuous substances;

(7) Rules and regulations specifying standards for equipment and procedures for monitoring pollutants, collection of samples, logging and reporting of the monitoring.

(c) *Rules and regulations generally.* — (1) The administration may adopt, amend, or repeal procedural rules necessary to accomplish the purposes of this subtitle. Notice of public hearing shall specify the general subject matter of the regulation and, if appropriate, shall specify the waters for which the standards or criteria are sought to be adopted, amended or repealed and shall publicly circulate notice of its intended action and afford interested persons opportunity to submit data or views, orally or in writing.

(2) The administration may adopt, amend, or repeal substantive regulations as described in this paragraph. In promulgating regulations under this subtitle, the administration shall take into account the existing physical conditions, the character of the area involved, including the character of surrounding land uses, priority ranking of waters with regard to effluent limits, zoning classifications, the nature of the existing receiving body of water, the technical feasibility and economic reasonableness of measuring or reducing the particular type of water pollution, and any other standard as expressed in the intent and purpose of this title. The generality of this grant of authority shall only be limited by the specifications of particular classes of regulations elsewhere in this subtitle. Any regulation may (i) prescribe different provisions as required by circumstances for different pollutant sources and for different geographical areas and (ii) apply to sources located outside this state which cause, contribute to, or threaten environmental damage in Maryland and (iii) make special provisions for alert and abatement standards and procedures respecting occurrences or emergencies of pollution or on other short-term conditions constituting an acute danger to health or to the environment.

* * *

(e) *Investigation of damage to aquatic resources; responsibility for cleanup; suit against persons liable for damage to aquatic resources.* — Whenever there occurs in the waters of the state any condition indicative of damage to aquatic resources, including, but not limited to, mortality of fish and other aquatic life, the department shall investigate the incident, determine the nature and extent of the damage, and establish the cause and source of the occurrence. The department shall act on these findings and require repair of any damage done and restoration of water resources to a degree necessary to protect the best interest of the people of the state. Any person who is determined to be responsible for the discharge or spillage of any such substance shall be personally and/or severally responsible to immediately clean up and abate the effects of the spillage and restore the natural resources of the state. If the department believes instituting suit is advisable, it shall turn over to the Attorney General all pertinent information and data. The Attorney General then shall file suit against the person causing the condition. The person shall be jointly and severally liable for the reasonable cost of rehabilitation and restoration of the resources damaged and the cost of eliminating the condition causing the damage, including the environmental monetary value of such resources as established by regulation.

Mass. Gen. Laws Ann. ch. 21 (1972), as amended, (Supp. 1974)

§ 26A. Definitions

Unless the context otherwise requires, when used in sections twenty-six to fifty-three, inclusive, the following words shall have the following meanings:

"Director", the director of the division of water pollution control, or his authorized delegate or representative.

"Effluent limitation", a requirement, established under state or federal law, specifying the maximum permissible quantity or concentration of any pollutant that may be present in discharges, or their maximum permissible hydraulic flow, over designated periods of time, to waters of the commonwealth or to a public sewerage system.

"Person", any agency or political subdivision of the commonwealth, public or private corporation or authority, individual, partnership or association, or other entity, including any officer of a public or private agency or organization, upon whom a duty may be imposed by or pursuant to any provision of sections twenty-six to fifty-three, inclusive.

"Pollutant", any element or property of sewage, agricultural, industrial or commercial waste, runoff, leachate, heated effluent, or other matter, in whatever form and whether originating at a point or major nonpoint source, which is or may be discharged, drained or otherwise introduced into any sewerage system, treatment works or waters of the commonwealth.

"Treatment works" and "facilities", any and all devices, processes and properties, real or personal, used in the collection, pumping, transmission, storage, treatment, disposal, recycling, reclamation or reuse of waterborne pollutants.

"Waters" and "waters of the commonwealth", all waters within the jurisdiction of the commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, coastal waters and groundwaters.
Added by St.1973, c. 546, § 2.

§ 27. Powers and duties of division

It shall be the duty and responsibility of the division to enhance the quality and value of water resources and to establish a program for prevention, control, and abatement of water pollution. Said division shall:

* * *

(5) Adopt standards of minimum water quality which shall be applicable to the various waters or portions of waters of the commonwealth. Standards relating to the public health shall not be adopted without the approval of the commissioner of public health.

(6) Prescribe effluent limitations, permit programs and procedures applicable to the management and disposal of pollutants, including, where appropriate, prohibition of discharges.

* * *

(12) Adopt, amend or repeal after hearing from time to time, with the approval of the water resources commission, rules and regulations which it deems necessary for the proper administration of the laws relative to water pollution control and to the protection of the quality and value of water resources, including regulations to control or prevent the discharge of sewage, garbage or other waste material from watercraft of any type, including houseboats. Such rules and regulations as shall relate to the public health shall not be adopted without the written approval of the commissioner of public health.

* * *

§ 42. Discharge into waters; violations of chapter, regulation, order or permit; false representations; tampering with monitoring device or method; criminal and civil penalties

Any person who, directly or indirectly, throws, drains, runs, discharges or allows the discharge of any pollutant into waters of the commonwealth, except in conformity with a permit issued under section forty-three; or who violates any provision of this chapter, any valid regulation, order or permit prescribed or issued by the director thereunder; or who knowingly makes any false representation in an application, record, report or plan, or falsifies, tampers with or renders inaccurate a monitoring device or method, required under this chapter, *(a)* shall be punished by a fine of not less than two thousand five hundred dollars nor more than twenty-five thousand dollars for each day such violation occurs or continues, or by imprisonment for not more than one year, or by both; or *(b)* shall be subject to a civil penalty not to exceed ten thousand dollars per day of such violation, which may be assessed in an action brought on behalf of the commonwealth in any court of competent jurisdiction.

Nothing in this chapter shall be construed as adversely affecting the rights of any person to secure judicial relief against actual or potential waste dischargers under other rules or provisions of law.

No information submitted or made available for inspection in accordance with requirements established by or under this chapter may be used in any criminal proceeding against the individual who submits it, certifies it, or makes it available, except in a prosecution for the making of a false statement or record, or for otherwise failing to comply with reporting or recording requirements under this chapter.

Me. Rev. Stat. Ann. tit. 38 (1964), as amended, (Supp. 1974)

§ 361–A. Definitions

Unless the context otherwise indicates, the following words when used in any statute administered by the Department of Environmental Protection shall have the following meanings:

1. **Discharge.** "Discharge" means any spilling, leaking, pumping, pouring, emptying, dumping, disposing or other addition of any pollutant to water of the State.

1–A. **Coastal streams.** "Coastal streams" means those waters of the State which drain directly or indirectly into tidal waters, except portions of streams subject to the rise and fall of the tide and those waters listed and classified in sections 368 and 370.

2. **Fresh surface waters.** "Fresh surface waters" means all waters of the State other than tidal waters.

3. **Municipality.** "Municipality" means a city, town, plantation or unorganized township.

4. **Person.** "Person" means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

4–A. **Pollutant.** "Pollutant" means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or byproducts, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

5. **Tidal waters.** "Tidal waters" means those portions of the Atlantic Ocean within the jurisdiction of the State, and all other waters of the State subject to the rise and fall of the tide except those waters listed and classified in sections 368 and 369.

6. **Transfer of ownership.** "Transfer of ownership" means a sale, a lease, a sale of over 50% of the stock of a corporation to one legal entity or a merger or consolidation where the surviving corporation is other than the original licensee.

7. **Waters of the State.** "Waters of the State" means any and all surface and subsurface waters which are contained within, flow through, or under or border upon this State or any portion thereof, including the marginal and high seas, except such waters as are confined and retained completely upon the property of one person and do not drain into or connect with any other waters of the State.

§ 363. Standards of classification of fresh waters

The commission shall have 4 standards for the classification of fresh surface waters.

Class A shall be the highest classification and shall be of such quality that it can be used for recreational purposes, including bathing, and for public water supplies after disinfection. The dissolved oxygen content of such waters shall not be less than 75% saturation or as naturally occurs, and contain not more than 100 coliform bacteria per 100 milliliters.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which would impart color, turbidity, taste or odor other than that which naturally occurs in said waters, nor shall such matter or substance alter the temperature or hydrogen-ion concentration of these waters or contain chemical constituents which would be harmful or offensive to humans or which would be harmful to animal or aquatic life. No radioactive matter or substance shall be permitted in these waters other than that occurring from natural phenomena.

There shall be no discharge of sewage or other wastes into water of this classification unless specifically licensed by the commission upon finding that no degradation will result to the quality of such waters, and no deposits of such material on the banks of such waters in such a manner that transfer of the material ino the waters is likely. Such waters may be used for log driving if such use will not lower its classification.

Class B, the 2nd highest classification, shall be divided into 2 designated groups as B-1 and B-2.

B-1. Waters of this class shall be considered the higher quality of the Class B group and shall be acceptable for recreational purposes, including water contact recreation, for use as potable water supply after adequate treatment and for a fish and wildlife habitat. The dissolved oxygen of such waters shall be not less than 75% of saturation, and not less than 5 parts per million at any time. The total coliform bacteria count is not to exceed 300 per 100 milliliters. The fecal coliform bacteria shall not exceed 60 per 100 milliliters.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which imparts color, turbidity, taste or odor which would impair the usages ascribed to this classification nor shall such matter or substance alter the temperature or hydrogen-ion concentration of these waters so as to render such waters harmful to fish or other aquatic life. There shall be no discharge to these waters which will cause the hydrogen ion concentration or "pH" of these waters to fall outside of the 6.0 to 8.5 range. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans, animals or aquatic life or which adversely affect any other water use in this class.

No radioactive matter or substances shall be discharged to these waters which will raise the radio-nuclide concentrations above the standards as established by the United States Public Health Service as being acceptable for drinking water. These waters shall be free of any matter or substance which alters the composition of bottom fauna, which adversely affects the physical or chemical nature of bottom material, or which interferes with the propagation of fish.

There shall be no disposal of sewage, industrial wastes or other wastes in such waters, except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

B-2. Waters of this class shall be acceptable for recreational purposes including water contact recreation, for industrial and potable water supplies after adequate treatment, and for a fish and wildlife habitat. The dissolved oxygen of such waters shall not be less than 60% of saturation, and not less than 5 parts per million at any time. The total coliform bacteria is not to exceed 1,000 per 100 milliliters. The fecal coliform bacteria is not to exceed 200 per 100 milliliters.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which imparts color, turbidity, taste or odor which would impair the usages ascribed to this classification, nor shall such matter or substance alter the temperature or hydrogen-ion concentration of the waters so as to render such waters harmful to fish or other aquatic life. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans, animal or aquatic life, or which adversely affect any other water use in this class. There shall be no discharge to these waters which will cause the hydrogen-ion concentration or "pH" of these waters to fall outside of the 6.0 to 8.5 range.

No radioactive matter or substance shall be discharged to these waters which will raise the radio-nuclide concentrations above the standards as established by the United States Public Health Service as being acceptable for drinking water. These waters shall be free of any matter or substance which alters the composition of bottom fauna, which adversely affects the physical or chemical nature of bottom material, or which interferes with the propagation of fish.

There shall be no disposal of sewage, industrial wastes or other wastes in such waters except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

Class C waters, the 3rd highest classification, shall be of such a quality as to be satisfactory for recreational boating and fishing, for a fish and wildlife habitat and for other uses except potable water supplies and water contact recreation, unless such waters are adequately treated.

The dissolved oxygen content of such waters shall not be less than 5 parts per million, except in those cases where the board finds that the natural dissolved oxygen of any such body of water falls below 5 parts per million, in which case the board may grant a variance to this requirement. In no event shall the dissolved oxygen content of such waters be less than 4 parts per million. The total coliform bacteria is not to exceed 5,000 per 100 milliliters. The fecal coliform bacteria is not to exceed 1,000 per 100 milliliters.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which imparts color, turbidity, taste or odor which would impair the usages ascribed to this classification, nor shall such matter or substance alter the temperature or hydrogen-ion content of the waters so as to render such waters harmful to fish or other aquatic life. There shall be no discharge to these waters which will cause the hydrogen-ion concentration or "pH" of these waters to fall outside of the 6.0 to 8.5 range. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans, animal or aquatic life or which adversely affect any other water use in this class. No radioactive material or substance shall be discharged to these waters which will raise the radionuclide concentrations above the standards as established by the United States Public Health Service as being acceptable for drinking water.

There shall be no disposal of sewage, industrial wastes or other wastes in such waters, except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

Class D waters shall be assigned only where a higher water classification cannot be attained after utilizing the best practicable treatment or control of sewage or other wastes. Waters of this class may be used for power generation, navigation and industrial process waters after adequate treatment. Dissolved oxygen of these waters shall not be less than 2.0 parts per million. The numbers of coliform bacteria allowed in these waters shall be only those amounts which will not, in the determination of the commission, indicate a condition harmful to the public health or impair any usages ascribed to this classification.

These waters shall be free from sludge deposits, solid refuse and floating solids such as oils, grease or scum. There shall be no disposal of any matter or substance in these waters which imparts color, turbidity, taste or odor which would impair the usages ascribed to this classification, nor shall such matter or substance alter the temperature or hydrogen-ion concentration of the waters to impair the usages of this classification. There shall be no disposal of any matter or substance that contains chemical constituents which are harmful to humans or which adversely affect any other water use in this class. No radioactive matter or substance shall be permitted in these waters which would be harmful to humans, animal or aquatic life and there shall be no disposal of any matter or substance which would result in radio-nuclide concentrations in edible fish or other aquatic life thereby rendering them dangerous for human consumption.

There shall be no disposal of sewage, industrial wastes or other wastes in such waters, except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification. Treated wastes discharging to these waters shall not create a public nuisance as defined in Title 17, section 2802, by the creation of odor-producing sludge banks and deposits or other nuisance conditions.

With respect to all classifications hereinbefore set forth, the commission may take such actions as may be appropriate for the best interest of the public, when it finds that any such classification is temporarily lowered due to abnormal conditions of temperature or stream flow.

At such time as the State applies for and receives authority to issue permits under the appropriate provisions of the Federal Water Pollution Control Act, as amended,[1] no person may serve as a board member who receives, or during the 2 years prior to his appointment has received, a significant portion of his income directly or indirectly from license or permit holders or applicants for a license or permit.

§ 364. Tidal or Marine Waters

The commission shall have 5 standards for classification of tidal waters:

Class SA, shall be suitable for all clean water usages, including water contact recreation, and fishing. Such waters shall be suitable for the harvesting and propagation of shellfish and for a fish and wildlife habitat. These waters shall contain not less than 6.0 parts per million of dissolved oxygen at all times. The median numbers of coliform bacteria in any series of samples representative of waters in the shellfish growing area or non-shellfish growing area shall not be in excess of 70 per 100 milliliters, nor shall more than 10% of the samples exceed 230 coliform bacteria per 100 milliliters.

The median numbers of fecal coliform bacteria in any series of samples representative of waters in the shellfish growing area or non-shellfish growing area shall not be in excess of 15 per 100 milliliters, nor shall more than 10% of the samples exceed 50 fecal coliform bacteria per 100 milliliters.

There shall be no floating solids, settleable solids, oil or sludge deposits attributable to sewage, industrial wastes or other wastes and no deposit of garbage, cinders, ashes, oils, sludge or other refuse. There shall be no discharge of sewage or other wastes, except those which have received treatment for the adequate removal of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification, nor shall such disposal of sewage or waste be injurious to aquatic life or render such dangerous for human consumption.

There shall be no toxic wastes, deleterious substances, colored or other waste or heated liquids discharged to waters of this classification either singly or in combinations with other substances or wastes in such amounts or at such temperatures as to be injurious to edible fish or shellfish or to the culture or propagation thereof, or which in any manner shall adversely affect the flavor, color, odor or sanitary condition thereof; and otherwise none in sufficient amounts to make the waters unsafe or unsuitable for bathing or impair the waters for any other best usage as determined for the specific waters assigned to this class. There shall be no discharge which will cause the hydrogen-ion concentration or "pH" of these waters to fall outside of the 6.7 to 8.5 range.

There shall be no disposal of any matter or substances that contains chemical constituents which are harmful to humans, animal or aquatic life or which adversely affect any other water use in this class. No radioactive matter moval of waste constituents including, but not limited to, solids, color, turbidity, taste, odor or toxic material, such that these treated wastes will not lower the standards or alter the usages of this classification. Treated wastes discharging to these waters shall not create a public nuisance as defined in Title 17, section 2802, by the creation of odor-producing sludge banks and deposits or other nuisance conditions.

With respect to all classifications hereinbefore set forth, the commission may take such actions as may be appropriate for the best interests of the public, when it finds that any such classification is temporarily lowered due to abnormal conditions of temperature or stream flow.

§ 419. Cleaning agents containing phosphate banned

1. Definitions.

A. Dairy equipment. "Dairy equipment", as used in this section, means equipment used by farmers or processors for the manufacture or processing of milk and dairy products.

B. Food processing equipment. "Food processing equipment", as used in this section, means equipment used for the processing and packaging of food for sale, except that equipment used at restaurants and similar places of business shall not be included within the meaning of "food processing equipment."

C. High phosphorous detergent. "High phosphorous detergent", as used in this section, means any detergent, presoak, soap, enzyme or other cleaning agent containing more than 8.7% phosphorous, by weight.

D. Industrial equipment. "Industrial equipment", as used in this section, means equipment used by industrial concerns which concerns are located on any brook, stream or river.

E. Person. "Person", as used in this section, means any individual, firm, association, partnership, corporation, municipality, quasi-municipal organization, agency of the State or other legal entity.

2. Prohibition. No person shall sell or use any high phosphorous detergent after June 1, 1972.

3. Exception. Subsection 2 shall not apply to any high phosphorous detergent sold and used for the purpose of cleaning dairy equipment, food processing equipment and industrial equipment.

4. Penalty. Any person who violates this section shall be punished by a fine of not more than $500 for each violation

§ 420. Certain deposits and discharges prohibited

No person, firm, corporation or other legal entity shall place, deposit, discharge or spill, directly or indirectly, into the inland or tidal waters of this and any body of water artificially formed or increased which has a surface area in excess of 30 acres, the shore of which is owned by 2 or more persons, firms, corporations or other legal entities.

§ 423. Discharge of waste from watercraft

No person, firm, corporation or other legal entity shall discharge, spill or permit to be discharged sewage, garbage or other waste material from watercraft, as defined in section 201, subsection 14, and including houseboats, into inland waters of this State, or on the ice thereof, or on the banks thereof in such a manner that the same may fall or be washed into such waters, or in such manner that the drainage therefrom may flow into such waters.

Any watercraft, as defined in section 201, subsection 14, including houseboats, operated upon the inland waters of this State and having a permanently installed sanitary waste disposal system shall have securely affixed to the interior discharge opening of said sanitary waste disposal system a holding tank or suitable container for holding sanitary waste material so as to prevent its discharge or drainage into the inland waters of the State.

Whoever violates any provision of this section or any regulation adopted under authority of this section shall be guilty of a misdemeanor and shall be punished by a fine of not more than $500.

§ 541. Findings; purpose

The Legislature finds and declares that the highest and best uses of the seacoast of the State are as a source of public and private recreation and solace from the pressures of an industrialized society, and as a source of public use and private commerce in fishing, lobstering and gathering other marine life used and useful in food production and other commercial activities.

The Legislature further finds and declares that the preservation of these uses is a matter of the highest urgency and priority and that such uses can only be served effectively by maintaining the coastal waters, estuaries, tidal flats, beaches and public lands adjoining the seacoast in as close to a pristine condition as possible taking into account multiple use accommodations necessary to provide the broadest possible promotion of public and private interests with the least possible conflicts in such diverse uses.

The Legislature further finds and declares that the transfer of oil, petroleum products and their by-products between vessels and vessels and onshore facilities and vessels within the jurisdiction of the State and state waters is a hazardous undertaking; that spills, discharges and escape of oil, petroleum products and their by-products occurring as a result of procedures involved in the transfer and storage of such products pose threats of great danger and damage to the marine, estuarine and adjacent terrestrial environment of the State; to owners and users of shorefront property; to public and private recreation; to citizens of the State and other interests deriving livelihood from marine-related activities; and to the beauty of the Maine coast; that such hazards have frequently occurred in the past, are occurring now and present future threats of potentially catastrophic proportions, all of which are expressly declared to be inimical to the paramount interests of the State as herein set forth and that such state interests outweigh any economic burdens imposed by the Legislature upon those engaged in transferring oil, petroleum products and their by-products and related activities.

The Legislature intends by the enactment of this legislation to exercise the police power of the State through the Environmental Improvement Commission by conferring upon said commission the exclusive power to deal with the hazards and threats of danger and damage posed by such transfers and related activities; to require the prompt containment and removal of pollution occasioned thereby; to provide procedures whereby persons suffering damage from such occurrences may be promptly made whole; and to establish a fund to provide for the inspection and supervision of such activities and guarantee the prompt payment of reasonable damage claims resulting therefrom.

The Legislature further finds and declares that the preservation of the public uses referred to herein is of grave public interest and concern to the State in promoting its general welfare, preventing disease, promoting health and providing for the public safety, and that the State's interest in such preservation outweighs any burdens of absolute liability imposed by the Legislature upon those engaged in transferring oil, petroleum products and their by-products and related activities.

§ 543. Pollution and corruption of waters and lands of the State prohibited

The discharge of oil, petroleum products or their by-products into or upon any coastal waters, estuaries, tidal flats, beaches and lands adjoining the seacoast of the State, or into any river, stream, sewer, surface water drain or other waters that drain into the coastal waters of the State is prohibited.

Notwithstanding the prohibition of this section, the Board of Environmental Protection may license the discharge of waste, refuse or effluent, including natural drainage contaminated by oil, petroleum products or their by-products, into or upon any coastal waters if, and only if, it finds that such discharge will be receiving the best available treatment and that such discharge will not degrade existing water quality nor perceptibly violate the classification of the receiving waters, nor create any visible sheen upon the receiving waters.

In acting upon an application for any such license, the board shall follow the provisions of subchapter I insofar as they are applicable.

§ 550. Enforcement, penalties

Whenever it appears after investigation that there is a violation of any rule, regulation, order or license issued by the commission, the commission shall proceed in accordance with the provisions of section 451, subsection 2.

Whoever violates any provisions of this subchapter or any rule, regulation or order of the commission made hereunder shall be punished by a fine of not less than $100 nor more than $5000. Each day that any violation shall continue shall constitute a separate offense. The provisions of this section shall not apply to any discharge promptly reported and removed by a licensee in accordance with the rules, regulations and orders of the commission.

§ 451. Enforcement generally

After adoption of any classification by the Legislature for surface waters or tidal flats or sections thereof, it shall be unlawful for any person, firm, corporation, municipality, association, partnership, quasi-municipal body, state agency or other legal entity to dispose of any sewage, industrial or other waste, either alone or in conjunction with another or others, in such manner as will, after reasonable opportunity for dilution, diffusion or mixture with the receiving waters or heat transfer to the atmosphere lower the quality of said waters below the minimum requirements of such classifications, or where mixing zones have been established by the commission, so lower the quality of said waters outside such zones, notwithstanding any exemptions or licenses which may have been granted or issued under sections 413 and 414.

* * *

All orders of the commission shall be enforced by the Attorney General. If any order of the commission is not complied with within the time period specified, the commission shall immediately notify the Attorney General of this fact. Within 21 days thereafter, the Attorney General shall forthwith commence an action in the Superior Court of any county where the violation of the commission's order has occurred.

If the commission finds that the discharge of any materials into any waters of this State constitutes a substantial and immediate danger to the health, safety or general welfare of any person, persons or property, they shall forthwith request the Attorney General to initiate immediate injunction proceedings to prevent such discharge. Said injunction proceedings may be instituted without recourse to the issuance of an order, as provided for in this section.

§ 453. Penalties

Any person who violates any provision of this subchapter, any order, regulation, license or decision of the board lawfully issued pursuant hereto, shall be punished by a fine of not less than $200 nor more than $25,000 for each day of such violation, failure, neglect or refusal after the expiration of any time limit set by the board. When an appeal is taken from any such order, no fine shall be imposed for that period of time during which said appeal is pending.

§ 454. Injunctions, civil and criminal actions

In the event of any violation of any of the provisions of the laws which the Department of Environmental Protection is responsible for administering, or of any order, regulation, decision, license or permit of the board or decree of the court as the case may be, the Attorney General may institute injunction proceedings to enjoin the further violation thereof, a civil or criminal action or any appropriate combination thereof, without recourse to section 451. In addition to any other penalties provided by law, any person who violates any provision of this subchapter or any rule, regulation, license or order issued or promulgated hereunder, shall be subject to a civil penalty, payable to the State, not to exceed $10,000 per day of such violation.

Mich. Stat. Ann. (Supp. 1974)

§ 3.523] Same; suits, enforcement of laws. Sec. 3. The commission shall be authorized to bring any appropriate action in the name of the people of the state of Michigan, either at law or in chancery, as may be necessary to carry out the provisions of this act, and to enforce any and all laws relating to the pollution of the waters of this state. (CL '48, § 323.3; CL '29, § 280.)

§ 3.525 Pollution standards; powers, rules and orders.] Sec. 5. The commission shall establish such pollution standards for lakes, rivers, streams and other waters of the state in relation to the public use to which they are or may be put, as it shall deem necessary. It shall ♦ [issue permits which will assure compliance with state standards to regulate municipal, industrial and commercial discharges or storage of any substance which may affect the quality of the waters of the state. It may set permit restrictions which will assure compliance with applicable federal law and regulations. It may] ascertain and determine for record and in making its order what volume of water actually flows in all streams, and the high and low water marks of lakes and other waters of the state, affected by the waste disposal or pollution of municipalities, industries, public and private corporations, individuals, partnership associations or any other entity. It ♦ [may] make ♦ [rules] and orders restricting the polluting content of any waste material or polluting substance discharged or sought to be discharged into any lake, river, stream or other waters of the state. It shall ♦ take all appropriate steps to prevent any pollution which is deemed by the commission to be unreasonable and against public interest in view of the existing conditions in any lake, river, stream or other waters of the state.

§ 3.529(1) Civil action; injunction; venue; civil penalty.] Sec. 10. [(1) The commission may request the attorney general to commence a civil action for appropriate relief, including a permanent or temporary injunction, for a violation of this act or rules promulgated hereunder. An action under this subsection may be brought in the circuit court for the county of Ingham or for the county in which the defendant is located, resides, or is doing business. The court has jurisdiction to restrain the violation and to require compliance. In addition to any other relief granted under this subsection, the court may impose a civil penalty of not more than $10,000.00 per day of violation.

Misdemeanor; penalty; recovery of damages and costs; probation.] (2)] A person who discharges ♦ [a] substance into the waters of the state contrary to ♦ [the provisions of this act,] or contrary to the provisions of a permit, order, rule, or stipulation of the commission, or who ♦ [makes a false statement, representation, or certification in an application for, or form pertaining to a permit, or in a notice or report required by the terms and conditions of an issued permit, or who renders inaccurate a monitoring device or record required to be maintained by the commission,] is guilty of a misdemeanor and ♦ [shall] be fined not [less than $2,500.00 nor] more than [$25,000.00] for each violation. The court may impose an additional fine of not more than [$25,000.00] for each day during which the unlawful discharge occurred. [If the conviction is for a violation committed after a first conviction of the person under this subsection, the court may impose a fine of not more than $50,000.00

per day of violation.**]** The circuit court for the county in which the violation occurred has exclusive jurisdiction. However, the person shall not be subject to the penalties of this **[**subsection**]** if the discharge of the effluent is in conformance with and obedient to a rule, order, or permit of the commission. In addition to ◆ **[**a**]** fine, the attorney general may file a suit in a court of competent jurisdiction to recover the full value of the injuries done to the natural resources of the state and the costs of surveillance and enforcement by the state resulting from the violation. In addition to ◆ **[**a**]** fine, the court in its discretion may impose probation upon ◆ **[**a**]** person for a violation of this ◆ **[**act**]**.

§ 3.533(109) Hazardous or nuisance conditions, or pollution; correction, abatement, prevention; indemnification.] Sec. 9. If the commission determines hazardous or nuisance conditions or that unlawful pollution of the waters of the state has resulted or may result from the handling or disposal of liquid industrial wastes by a licensee, it shall first notify the licensee thereof and shall afford him the opportunity to take corrective action or to abate the pollution or take the necessary means to prevent the occurrence of unlawful pollution. If the licensee does not effect the correction, abatement or prevention within a reasonable time, the commission shall do so and shall be entitled to indemnification by the bond for the actual costs thereof.

§ 3.533(110) Violation; license revocation; penalties; continuing violations.] Sec. 10. Any person who violates or refuses to comply with any of the provisions of this act shall be subject to the revocation of his license by the commission, and upon conviction thereof by a court of competent jurisdiction shall be fined not less than $500.00 and costs of prosecution, and in default of payment of fine and costs, imprisoned for not less than 10 days nor more than 30 days. When the violation is of a continuing nature, each day upon which a violation occurs is a separate offense.

Minn. Stat. Ann. (1964), as amended, (Supp. 1974)

115.01 Definitions

Subdivision 1. The following words and phrases when used in chapter 115 and, with respect to the pollution of the waters of the state, in chapter 116, unless the context clearly indicates otherwise, shall have the meanings ascribed to them in this section.

Subd. 2. "Sewage" means the water-carried waste products from residences, public buildings, institutions or other buildings, or any mobile source, including the excrementitious or other discharge from the bodies of human beings or animals, together with such ground water infiltration and surface water as may be present.

Subd. 3. "Industrial waste" means any liquid, gaseous or solid waste substance resulting from any process of industry, manufacturing trade or business or from the development of any natural resource.

Subd. 4. "Other wastes" mean garbage, municipal refuse, decayed wood sawdust, shavings, bark, lime, sand, ashes, offal, oil, tar, chemicals, dredged spoil, solid waste, incinerator residue, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, cellar dirt or municipal or agricultural waste, and all other substances not included within the definitions of sewage and industrial waste set forth in this chapter which may pollute or tend to pollute the waters of the state.

Subd. 5. "Pollution of water", "water pollution", or "pollute the water" means: (a) the discharge of any pollutant into any waters of the state or the contamination of any waters of the state so as to create a nuisance or render such waters unclean, or noxious, or impure so as to be actually or potentially harmful or detrimental or injurious to public health, safety or welfare, to domestic, agricultural, commercial, industrial, recreational or other legitimate uses, or to livestock, animals, birds, fish or other aquatic life; or (b) the man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of waters of the state.

Subd. 6. "Sewer system" means pipe lines or conduits, pumping stations, and force mains, and all other constructions, devices, and appliances appurtenant thereto, used for conducting sewage or industrial waste or other wastes to a point of ultimate disposal.

Subd. 7. "Treatment works" means any plant, disposal field, lagoon, dam, pumping station, constructed drainage ditch or surface water intercepting ditch, incinerator, area devoted to sanitary land fills, or other works not specifically mentioned herein, installed for the purpose of treating, stabilizing or disposing of sewage, industrial waste, or other wastes.

Subd. 8. "Disposal system" means a system for disposing of sewage, industrial waste and other wastes, and includes sewer systems and treatment works.

Subd. 9. "Waters of the state" means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

Subd. 10. "Person" means the state or any agency or institution thereof, any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity, including, but not limited to, association, commission or any interstate body, and includes any officer or governing or managing body of any municipality, governmental subdivision, or public or private corporation, or other entity.

Subd. 11. "Agency" means the Minnesota pollution control agency.

Subd. 12. "Discharge" means the addition of any pollutant to the waters of the state or to any disposal system.

Subd. 13. "Pollutant" means any "sewage," "industrial waste," or "other wastes," as defined in chapter 115, discharged into a disposal system or to waters of the state.

Subd. 14. "Toxic pollutants" means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the agency, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformation, in such organisms or their offspring.

Subd. 15. "Point source" means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

Subd. 16. "Standards" means effluent standards, effluent limitations, standards of performance for new sources, water quality standards, pretreatment standards, and prohibitions.

Subd. 17. "Schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

115.03 Powers and duties

Subdivision 1. The agency is hereby given and charged with the following powers and duties:

* * *

(c) To establish and alter such reasonable pollution standards for any waters of the state in relation to the public use to which they are or may be put as it shall deem necessary for the purposes of chapter 115 and, with respect to the pollution of waters of the state, chapter 116;

* * *

(e) To adopt, issue, reissue, modify, deny, or revoke, enter into or enforce reasonable orders, permits, variances, standards, regulations, schedules of compliance, and stipulation agreements, under such conditions as it may prescribe, in order to prevent, control or abate water pollution, or for the installation or operation of disposal systems or parts thereof, or for other equipment and facilities;

(1) Requiring the discontinuance of the discharge of sewage, industrial waste or other wastes into any waters of the state resulting in pollution in excess of the applicable pollution standard established under this chapter;

(2) Prohibiting or directing the abatement of any discharge of sewage, industrial waste, or other wastes, into any waters of the state or the deposit thereof or the discharge into any municipal disposal system where the same is likely to get into any waters of the state in violation of this chapter and, with respect to the pollution of waters of the state, chapter 116, or standards or regulations promulgated or permits issued pursuant thereto, and specifying the schedule of compliance within which such prohibition or abatement must be accomplished;

115.061 Duty to notify and avoid water pollution

It is the duty of every person to notify the agency immediately of the discharge, accidental or otherwise, of any substance or material under its control which, if not recovered, may cause pollution of waters of the state, and the responsible person shall recover as rapidly and as thoroughly as possible such substance or material and take immediately such other action as may be reasonably possible to minimize or abate pollution of waters of the state caused thereby.

115.07 Violations and prohibitions

Subdivision 1. Obtain permit. It shall be unlawful for any person to construct, install or operate a disposal system, or any part thereof, until plans therefor shall have been submitted to the commission unless the commission shall have waived the submission thereof to it and a written permit therefor shall have been granted by the commission.

Subd. 2. Repealed by Laws 1973, c. 374, § 22.

Subd. 3. Permission for extension. It shall be unlawful for any person to make any change in, addition to or extension of any existing disposal system or point source, or part thereof, to effect any facility expansion, production increase, or process modification which results in new or increased discharges of pollutants, or to operate such system or point source, or part thereof as so changed, added to, or extended until plans and specifications therefor shall have been submitted to the agency unless the agency shall have waived the submission thereof to it and a written permit therefor shall have been granted by the agency.

115.071 Enforcement

Subdivision 1. Remedies available. The provisions of chapters 115 and 116 and all regulations, standards, orders, stipulation agreements, schedules of compliance, and permits adopted or issued by the agency thereunder or under any other law now in force or hereafter enacted for the prevention, control, or abatement of pollution may be enforced by any one or any combination of the following: criminal prosecution; action to recover civil penalties; injunction; action to compel performance; or other appropriate action, in accordance with the provisions of said chapters and this section.

Subd. 2. Criminal penalties. (a) Violations of laws; orders; permits. (1) Any person who willfully or negligently violates any provision of chapter 115 or 116, or any standard, regulation, variance, order, stipulation agreement, schedule of compliance or permit issued or adopted by the agency thereunder, which violation is not included in clause (2), shall upon conviction be guilty of a misdemeanor.

(2) Any person who willfully or negligently violates any effluent standard and limitation or water quality standard adopted by the agency, any National Pollutant Discharge Elimination System permit issued by the agency or any term or condition thereof, any duty to permit or carry out any recording, reporting, monitoring, sampling, information entry, access, copying, or other inspection or investigation requirement as provided under applicable provisions of chapter 115 and, with respect to the pollution of waters of the state, chapter 116, or any National Pollutant Discharge Elimination System filing requirement, shall upon conviction be punished by a fine of not less than $2,500 in the event of a willful violation or not less than $300 in the event of a negligent violation. In any case the penalty shall not be more than $25,000 per day of violation or by imprisonment for not more than one year, or both. If the conviction is for conduct committed after a first conviction of such person under this subdivision, punishment shall be by fine of not more than $50,000 per day of violation, or by imprisonment for not more than two years, or both.

(b) Information and monitoring. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under chapter 115 and, with respect to the pollution of the waters of the state, chapter 116, or standards, regulations, orders, stipulation agreements, schedule of compliance or permits pursuant hereto, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under chapter 115 and, with respect to the pollution of waters of the state, chapter 116, or standards, regulations, variances, orders, stipulation agreements, schedules of compliance, or permits pursuant thereto, shall upon conviction, be punished by a fine of not more than $10,000 per day of violation, or by imprisonment for not more than six months, or both.

(c) Duty of law enforcement officials. It shall be the duty of all county attorneys, sheriffs and other peace officers, and other officers having authority in the enforcement of the general criminal laws to take all action to the extent of their authority, respectively, that may be necessary or proper for the enforcement of said provisions, regulations, standards, orders, stipulation agreements, variances, schedule of compliance, or permits.

Subd. 3. Civil penalties. Any person who violates any provision of chapters 115 or 116, except any provisions of chapter 116 relating to air and land pollution caused by agricultural operations which do not involve National Pollutant Discharge Elimination System permits, or of (1) any effluent standards and limitations or water quality standards, (2) any National Pollutant Discharge Elimination System permit or term or condition thereof, (3) any National Pollutant Discharge Elimination System filing requirements, (4) any duty to permit or carry out inspection, entry or monitoring activities, or (5) any rules, regulations, stipulation agreements, variances, schedules of compliance, or orders issued by the agency, shall forfeit and pay to the state a penalty, in an amount to be determined by the court, of not more than $10,000 per day of violation.

In addition, in the discretion of the court, the defendant may be required to:

(a) forfeit and pay to the state a sum which will adequately compensate the state for the reasonable value of cleanup and other expenses directly resulting from unauthorized discharge of pollutants, whether or not accidental;

(b) forfeit and pay to the state an additional sum to constitute just compensation for any loss or destruction to wildlife, fish or other aquatic life and for other actual damages to the state caused by an unauthorized discharge of pollutants.

As a defense to any of said damages, the defendant may prove that the violation was caused solely by (1) an act of God, (2) an act of war, (3) negligence on the part of the state of Minnesota, or (4) an act or failure to act which constitutes sabotage or vandalism, or any combination of the foregoing clauses.

The civil penalties and damages provided for in this subdivision may be recovered by a civil action brought by the attorney general in the name of the state.

Subd. 4. Injunctions. Any violation of the provisions, regulations, standards, orders, stipulation agreements, variances, schedules of compliance, or permits specified in chapters 115 and 116 shall constitute a public nuisance and may be enjoined as provided by law in an action, in the name of the state, brought by the attorney general.

Subd. 5. Actions to compel performance. In any action to compel performance of an order of the agency for any purposes relating to the prevention, control or abatement of pollution under chapters 115 and 116, the court may require any defendant adjudged responsible to do and perform any and all acts and things within his power which are reasonably necessary to accomplish the purposes of the order. In case a municipality or its governing or managing body or any of its officers is a defendant, the court may require him to exercise his powers, without regard to any limitation of any requirement for an election or referendum imposed thereon by law and without restricting the powers of the agency to do any or all of the following, without limiting the generality hereof: to levy taxes, levy special assessments, prescribe service or use charges, borrow money, issue bonds, employ assistance, acquire real or personal property, let contracts or otherwise provide for the doing of work or the construction, installation, maintenance, or operation of facilities, and do all other acts and things reasonably necessary to accomplish the purposes of the order, but the court shall grant the municipality the opportunity to determine the appropriate financial alternatives to be utilized in complying with the court imposed requirements.

§ 49-17-3. Statement of policy.

Whereas, the pollution of the air and waters of the state constitutes a menace to public health and welfare, creates a public nuisance, is harmful to wildlife, fish and aquatic life, and impairs domestic, agricultural, industrial, recreational and other legitimate beneficial uses of air and water, and whereas, the problem of air and water pollution in this state is closely related to the problem of air and water pollution in adjoining states, it is hereby declared to be the public policy of this state to conserve the air and waters of the state and to protect, maintain and improve the quality thereof for public use, for the propagation of wildlife, fish and aquatic life, and for domestic, agricultural, industrial, recreational and other legitimate beneficial uses; to maintain such a reasonable degree of quality of the air resources of the state to protect the health, general welfare and physical property of the people, and to provide that no waste be discharged into any waters of the state without first receiving the necessary treatment or other corrective action to protect the legitimate beneficial uses of such waters; to provide for the prevention, abatement and control of new or existing air or water pollution, and to cooperate with other agencies of the state, agencies of other states, and the federal government in carrying out these objectives.

§ 49-17-5. Definitions.

For the purposes of sections 49-17-1 to 49-17-43, the following words and phrases shall have the meanings ascribed to them in this section:

(1) **Water.**

(a) "Pollution" means such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will, or is likely to, create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.

(b) "Wastes" means sewage, industrial wastes, oil field wastes, and all other liquid, gaseous, solid, radioactive, or other substances which may pollute or tend to pollute any waters of the state.

(c) "Sewerage system" means pipelines or conduits, pumping stations, and force mains, and other structures, devices, appurtenances and facilities used for collecting or conducting wastes to an ultimate point for treatment or disposal.

(d) "Treatment works" means any plant or other works, used for the purpose of treating, stabilizing or holding wastes.

(e) "Disposal system" means a system for disposing of wastes, either by surface or underground methods, and includes sewerage systems, treatment works, disposal wells, and other systems.

(f) "Waters of the state" means all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, situated wholly or partly within or bordering upon the state, and such coastal waters as are within the jurisdiction of the state, except lakes, ponds, or other surface waters which are wholly landlocked and privately owned.

* * *

§ 49–17–17. Power and duties.

The commission shall have and may exercise the following powers and duties:

* * *

(h) To adopt, modify, or repeal and promulgate standards of quality of the air and water of the state under such conditions as the commission may prescribe for the prevention, control and abatement of pollution;

(i) To adopt, modify, repeal, and promulgate, after due notice and hearing, and to enforce rules and regulations implementing or effectuating the powers and duties of the commission under sections 49–17–1 to 49–17–43 and as the commission may deem necessary to prevent, control and abate existing or potential pollution;

(j) To issue, modify, or revoke orders (1) prohibiting, controlling or abating discharges of contaminants and wastes into the air and waters of the state; (2) requiring the construction of new disposal systems, or air-cleaning devices, or any parts thereof, or the modification, extension or alteration of existing disposal systems, or air-cleaning devices, or any parts thereof, or the adoption of other remedial measures to prevent, control or abate air and water pollution; and (3) setting standards of air or water quality or evidencing any other determination by the commission under sections 49–17–1 to 49–17–43;

* * *

§ 49-17-43. Penalties.

(a) Any person found by the commission violating any of the provisions of sections 49-17-1 to 49-17-43, or any rule or regulation or written order of the commission in pursuance thereof, shall be subject to a penalty of not less than fifty dollars ($50.00) and not more than five thousand dollars ($5,000.00), for each violation, such penalty to be assessed and levied by the commission after a hearing as provided hereinabove. Appeals from the imposition of the penalty may be taken to the chancery court in the same manner as appeals from orders of the commission. If the appellant desires to stay the execution of a penalty assessed by the commission, he shall give bond with sufficient resident sureties of one or more guaranty or surety companies authorized to do business in this state, payable to the State of Mississippi, in a penalty equal to double the amount of any penalty assessed by the commission, as to which the stay of execution is desired, conditioned, if the judgment shall be affirmed, to pay all costs of the assessment entered against the appellant. Each day upon which a violation of the provisions of sections 49-17-1 to 49-17-43 occurs shall be deemed a separate and additional violation. Funds collected under this section shall be deposited in the water pollution abatement grant fund. Action pursuant to this section shall not be a bar to enforcement of sections 49-17-1 to 49-17-43, rules and regulations in force pursuant thereto and orders made pursuant to the aforementioned sections, by injunction or other appropriate remedy. The commission shall have power to institute and maintain in the name of the state any and all such enforcement proceedings in the chancery court of the county in which venue may lie.

(b) Any person who violates any of the provisions of, or fails to perform any duty imposed by, sections 49-17-1 to 49-17-43 or any rule or regulation issued hereunder, or who violates any order or determination of the commission promulgated pursuant to such sections, and causes the death of fish or other wildlife shall be liable, in addition to the penalties provided in subsection (a) hereof, to pay to the state an additional amount equal to the sum of money reasonably necessary to restock such waters or replenish such wildlife as determined by the commission after consultation with the state game and fish commission. Such amount may be recovered by the commission on behalf of the state in a civil action brought in the circuit court of the county in which venue may lie.

(c) Any person who owns or operates facilities which, through misadventure, happenstance or otherwise cause pollution necessitating immediate remedial or cleanup action shall be liable for the cost of such remedial or cleanup action and the commission may recover the cost of same by a civil action brought in the circuit court of the county in which venue may lie.

In the event of the necessity for immediate remedial or cleanup action, the commission may contract for same and advance funds from the water pollution abatement grant fund to pay the costs thereof, such advancements to be repaid to the water pollution abatement grant fund upon recovery by the commission as provided above.

(d) It is unlawful for any person to: (1) discharge pollutants in violation of section 49–17–29 or in violation of any condition or limitation included in a permit issued under section 49–17–29 or (2) introduce pollutants into publicly owned treatment works in violation of pretreatment standards or in violation of toxic effluent standards; and, upon conviction thereof, such person shall be punished by a fine of not less than two thousand five hundred dollars ($2,500.00) nor more than ten thousand dollars ($10,000.00) per day of violation.

Mo. Rev. Stat. (1969), as amended, (Supp. 1973)

204.011. Statement of policy.—Whereas the pollution of the waters of this state constitutes a menace to public health and welfare, creates a public nuisance, is harmful to wildlife, fish and aquatic life and impairs domestic, agricultural, industrial, recreational and other legitimate uses of water, and whereas the problem of water pollution in this state is closely related to the problem of water pollution in adjoining states, and whereas this state must possess the authority required of states in the Federal Water Pollution Control Act as amended if it is to retain control of its water pollution control programs, it is hereby declared to be the public policy of this state to conserve the waters of the state and to protect, maintain, and improve the quality thereof for public water supplies and for domestic, agricultural, industrial, recreational and other legitimate beneficial uses and for the propagation of wildlife, fish and aquatic life; to provide that no waste be discharged into any waters of the state without first receiving the necessary treatment or other corrective action to protect the legitimate beneficial uses of such waters and meet the requirements of the Federal Water Pollution Control Act as amended; to provide for the prevention, abatement and control of new or existing water pollution; and to cooperate with other agencies of the state, agencies of other states, the federal government and any other persons in carrying out these objectives.

204.016. Definitions.—When used in sections 204.006 to 204.141 and in standards, rules and regulations promulgated under authority of sections 204.006 to 204.141, the following words and phrases shall have the meanings ascribed to them in this section unless the context clearly requires otherwise:

(1) **"Discharge"**, the causing or permitting of one or more water contaminants to enter the waters of the state;

(2) **"Effluent control regulations"**, limitations on the discharge of water contaminants;

* * *

(6) **"Point source"** means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged;

(7) **"Pollution"**, such contamination or other alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is reasonably certain to create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, industrial, agricultural, recreational, or other legitimate beneficial uses, or to wild animals, birds, fish or other aquatic life;

* * *

(12) **"Water contaminant"**, any particulate matter or solid matter or liquid or any gas or vapor or any combination thereof, or any temperature change which is in or enters any waters of the state either directly or indirectly by surface runoff, by sewer, by subsurface seepage or otherwise, which causes or would cause pollution upon entering waters of the state, or which violates or exceeds any of the standards, regulations or limitations set forth in sections 204.006 to 204.141 or any federal water pollution control act, or is included in the definition of pollutant in such federal act;

(13) **"Water contaminant source"**, the point or points of discharge from a single tract of property on which is located any installation, operation or condition which includes any point source defined in sections 204.006 to 204.141 and nonpoint source under any federal water pollution control act, which causes or permits a water contaminant therefrom to enter waters of the state either directly or indirectly;

(14) **"Water quality standards"**, specified concentrations and durations of water contaminants which reflect the relationship of the intensity and composition of water contaminants to potential undesirable effects;

(15) **"Waters of the state"**, all rivers, streams, lakes and other bodies of surface and subsurface water lying within or forming a part of the boundaries of the state which are not entirely confined and located completely upon lands owned, leased or otherwise controlled by a single person or by two or more persons jointly or as tenants in common and includes waters of the United States lying within the state.

204.026. Powers and duties of the commission.—The commission shall

* * *

(8) Adopt, amend, promulgate, or repeal after due notice and hearing, rules and regulations to enforce, implement, and effectuate the powers and duties of sections 204.006 to 204.141 and any required of this state by any federal water pollution control act, and as the commission may deem necessary to prevent, control and abate existing or potential pollution;

(9) Issue, modify or revoke orders prohibiting or abating discharges of water contaminants into the waters of the state or adopting other remedial measures to prevent, control or abate pollution;

* * *

(16) Establish effluent and pretreatment and toxic material control regulations to further the purposes of sections 204.006 to 204.141 and as required to insure compliance with all effluent limitations, water quality related effluent limitations, national standards of performance and toxic and pretreatment effluent standards, and all requirements and any time schedules thereunder, as established by any federal water pollution control act for point sources in this state, and where necessary to prevent violation of water quality standards of this state;

(17) Prohibit all discharges of radiological, chemical, or biological warfare agent or high-level radioactive waste into waters of this state;

* * *

(23) Require persons owning or engaged in operations which do or could discharge water contaminants, or introduce water contaminants or pollutants of a quality and quantity to be established by the commission, into any publicly owned treatment works or facility, to provide and maintain any facilities and conduct any tests and monitoring necessary to establish and maintain records and to file reports containing information relating to measures to prevent, lessen or render any discharge less harmful or relating to rate, period, composition, temperature, and quality and quantity of the effluent, and any other information required by any federal water pollution control act or the executive secretary hereunder, and to make them public, except as provided in subdivision (20) of this section. The commission shall develop and adopt such procedures for inspection, investigation, testing, sampling, monitoring and entry respecting water contaminant and point sources as may be required for approval of such a program under any federal water pollution control act;

204.051. Prohibited acts—permits required, when, fee—fund created—bond required of permit holders, when.—1. It is unlawful for any person

(1) To cause pollution of any waters of the state or to place or cause or permit to be placed any water contaminant in a location where it is reasonably certain to cause pollution of any waters of the state;

(2) To discharge any water contaminants into any waters of the state which reduce the quality of such waters below the water quality standards established by the commission if not subject to effluent regulations adopted pursuant to sections 204.006 to 204.141;

(3) To violate any pretreatment and toxic material control regulations, or to discharge any water contaminants into any waters of the state which exceed effluent regulations or permit provisions as established by the commission or required by any federal water pollution control act;

(4) To discharge any radiological, chemical, or biological warfare agent or high-level radioactive waste into the waters of the state.

2. It shall be unlawful for any person to build, erect, alter, replace, operate, use or maintain any water contaminant or point source in this state that is subject to standards, rules or regulations promulgated pursuant to the provisions of sections 204.006 to 204.141 unless he holds a permit from the commission, subject to such exceptions as the commission may prescribe by rule or regulation. However, no permit shall be required of any person for any emission into publicly owned treatment facilities or into publicly owned sewer systems tributary to publicly owned treatment works.

3. Every proposed water contaminant or point source which, when constructed or installed or established, will be subject to any federal water pollution control act or sections 204.006 to 204.141 or regulations promulgated pursuant to the provisions of such act shall make application to the executive secretary for a permit at least thirty days prior to the initiation of construction or installation or establishment. Every water contaminant or point source in existence when regulations or sections 204.006 to 204.141 become effective shall make application to the executive secretary for a permit within sixty days after the regulations or sections 204.006 to 204.141 become effective, whichever shall be earlier. The executive secretary shall promptly investigate each application,

which investigation shall include such hearings and notice, and consideration of such comments and recommendations as required by sections 204.006 to 204.141 and any federal water pollution control act. If he determines that the source meets or will meet the requirements of sections 204.006 to 204.141 and the regulations promulgated pursuant thereto, he shall issue a permit with such conditions as he deems necessary to insure that the source will meet the requirements of sections 204.006 to 204.141 and any federal water pollution control act as it applies to sources in this state. If the executive secretary determines that the source does not meet or will not meet the requirements of either act and the regulations pursuant thereto, he shall deny the permit under the applicable act and issue any notices required by sections 204.006 to 204.141 and any federal water pollution control act.

204.076. Unlawful acts prohibited—false statements and negligent acts prohibited—penalty—exception.—1. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 204.006 to 204.141, or any standard, rule or regulation promulgated by the commission. In the event the commission or its executive secretary determines that any provision of sections 204.006 to 204.141 or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the executive secretary, or any filing requirement under sections 204.006 to 204.141 or any other provision which this state is required to enforce under any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or executive secretary may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed ten thousand dollars per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. The commission or the executive secretary may request either the attorney general or a prosecuting attorney to bring any action authorized in this section in the name of the people of the state of Missouri. Suit may be brought in any county where the defendant's principal place of business is located or where the water contaminant or point source is located or was located at the time the violation occurred.

2. Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained under sections 204.006 to 204.141 or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under sections 204.006 to 204.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.

3. Any person who willfully or negligently commits any violation set forth under subsection 1 shall, upon conviction, be punished by a fine of not less than twenty-five hundred dollars nor more than twenty-five thousand dollars per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision hereunder by any person shall be punished by a fine of not more than fifty thousand dollars per day of violation, or by imprisonment for not more than two years, or both.

4. The liabilities which shall be imposed pursuant to any provision of sections 204.006 to 204.141 upon persons violating the provisions of sections 204.006 to 204.141 or any standard, rule, limitation, or regulation adopted pursuant thereto shall not be imposed due to any violation caused by an act of God, war, strike, riot, or other catastrophe.

204.096. State or its subdivisions may recover actual damages from violators.—In addition to other penalties prescribed in sections 204.006 to 204.141, the state, or any political subdivision or agency thereof, has a cause of action against any person violating the provisions of sections 204.006 to 204.141 for actual damages, including all costs and expenses necessary to establish or collect any sums under sections 204.006 to 204.141, and the costs and expenses of restoring any waters of the state to their condition as they existed before the violation, sustained by it because of the violation. The action shall be brought by the attorney general or a prosecuting attorney in any court where an action for injunctive relief hereunder could be brought.

Mont. Rev. Code Ann. §§ 69-4801 to 69-4827 (1969), as amended, (Supp. 1974 and Cum. Supp. 1974)

69-4802. Definitions. Unless the context requires otherwise in this chapter:

(1) "Sewage" means water-carried waste products from residences, public buildings, institutions, or other buildings including discharge from human beings or animals together with ground water infiltration and surface water present.

(2) "Industrial waste" means any waste substance from the process of business or industry, or from the development of any natural resource together with any sewage that may be present;

(3) "Other wastes" means garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, sand, ashes, offal, night soil, oil, tar, chemicals, dead animals, sediment, and all other substances that may pollute state waters;

(4) "Contamination" means impairment of the quality of state waters by sewage, industrial wastes, or other wastes creating a hazard to human health;

(5) "Pollution" means contamination, or other alteration of the physical, chemical, or biological properties of any state waters, which exceeds that permitted by Montana water quality standards, including, but not limited to, standards relating to change in temperature, taste, color, turbidity, or odor, or discharge of any liquid, gaseous, solid, radioactive, or other substance into any state water which will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife. A discharge which is permitted by Montana water quality standards is not "pollution" under this chapter.

* * *

69-4808.2. Duties of board. (1) The board shall:

(a) Establish and modify the classification of all waters in accordance with their present and future most beneficial uses.

(b) Formulate standards of water purity and classification of water according to its most beneficial uses, giving consideration to the economics of waste treatment and prevention.

* * *

(h) Adopt rules for the administration of this chapter.

(i) Adopt pretreatment standards for waste-water discharged in municipal disposal system, adopt effluent standards as defined in sec. 69-4802(20), and establish standards of performance for new point source discharges.

69-4820. Violation of chapter or rule—notice to violator—hearing before board—notice, procedure, order, rehearing. (1) When the department has reason to believe that a violation of this chapter or a rule made under it has occurred, it shall have written notice served personally or by mail on the alleged violator or his agent. The notice shall state the provision alleged to be violated, the facts alleged to constitute the violation, the nature of corrective action which the department requires, and the time within which the action is to be taken. For the purposes of this chapter, service by mail is complete on the date of mailing.

(2) In a notice given under subsection (1) of this section, the department may require the alleged violator to appear before the board for a public hearing and to answer the charges made against him. The hearing shall be held no sooner than fifteen (15) days after service of the notice, except that the board may set an earlier date for hearing if it is requested to do so by the alleged violator. The board may set a later date for hearing at the request of the alleged violator if the alleged violator shows good cause for delay.

(3) If the department does not require an alleged violator to appear before the board for a public hearing, he may request the board to conduct the hearing. The request shall be in writing and shall be filed with the department no later than thirty (30) days after service of a notice under subsection (1) of this section. If a request is filed, a hearing shall be held within a reasonable time.

(4) If a hearing is held under this section, it shall be public and shall, if the board considers it practicable, be held in a county in which the violation is alleged to have occurred.

(5) After a hearing or on failure of an alleged violator to make a timely request for a hearing, the board may issue an appropriate order for the prevention, abatement, or control of pollution. It shall state the date or dates by which a violation shall cease and may prescribe timetables for necessary action in preventing, abating, or controlling the pollution. The alleged violator may petition the board for a rehearing, on the basis of new evidence, which petition the board may grant for good cause shown.

(6) In addition to or instead of issuing an order, the board may direct the department to initiate appropriate action for recovery of a penalty under section 69-4823.

69-4821. Judicial remedies—review by district court. (1) An appeal of an order of the board shall be in the district court of the county in which the alleged source of pollution is located.

(2) A person interested in the order may intervene, in the manner provided by the Rules of Civil Procedure, if he shows good cause. An intervenor is a party for the purposes of this chapter.

(3) The attorney general shall represent the board if requested, or the department may appoint special counsel for the proceedings, subject to the approval of the attorney general.

(4) The initiation of an action for review or the taking of an appeal does not stay the effectiveness of any order of the board, unless the court finds that there is probable cause to believe:

(a) That refusal to grant a stay will cause serious harm to the affected party, and

(b) That any violation found by the board:

(i) Will not continue, or

(ii) If it does continue, any harmful effects on state waters will be remedied immediately on the cessation of the violation.

(5) If a court does not stay the effectiveness of an order of the board, it may enforce compliance with that order by issuing a temporary restraining order or an injunction at the request of the board.

69-4823. Penalties for violation of provisions, rule, permit, effluent standard, or order—purpose and construction of chapter. (1) A person who violates a rule, permit, effluent standard, or order issued under the provisions of this act shall be guilty of an offense and subject to a civil penalty not to exceed ten thousand dollars ($10,000). Each day of violation constitutes a separate offense.

(2) A person who willfully violates section 69-4806, R. C. M. 1947, or any pretreatment standard established pursuant to this act is guilty of an offense and subject to a fine not to exceed twenty-five thousand dollars ($25,000) per day of violation or by imprisonment for not more than one (1) year or both. Following an initial conviction under this subsection, subsequent convictions shall subject a person to a fine of not more than fifty thousand dollars ($50,000) per day of violation, or imprisonment for not more than two (2) years, or both.

(3) Action under subsection (1) of this section does not bar enforcement of this chapter or of rules or orders issued under it by injunction or other appropriate remedy. The department shall institute and maintain any enforcement proceedings in the name of the state.

(4) A purpose of this chapter is to provide additional and cumulative remedies to prevent, abate, and control the pollution of state waters. This chapter does not abridge or alter rights of action or remedies in equity or under the common law or statutory law, criminal or civil, nor does this chapter or an act done under it estop the state or a municipality or person as owners of water rights or otherwise in the exercise of their rights in equity or under the common law or statutory law to suppress nuisances or to abate pollution.

(5) Fines collected shall be deposited to the state general fund.

(6) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under this act or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under this act shall upon conviction be punished by a fine of not more than ten thousand dollars ($10,000), or by imprisonment for not more than six (6) months or both.

(7) In a civil action initiated by the department under this act, the department may ask for and the court is authorized to assess a violator for the cost of the investigation or monitoring survey which led to the establishment of the violation, and any expense incurred by the state in removing, correcting or terminating any of the adverse effects upon water quality resulting from the unauthorized discharge of pollutants.

69-4825. Injunctions. The department may bring an action for an injunction against the continuation of an alleged violation which has been the basis of suspension or revocation of a permit by the department or against a person who fails to comply with an emergency order issued by the department under section 69-4824 or a final order of the board. The court to which the department applies for an injunction may issue a temporary injunction, if it finds that there is reasonable cause to believe that the allegations of the department are true, and it may issue a temporary restraining order pending action on the temporary injunction.

Neb. Rev. Stat. (Supp. 1974).

81-1502. Department of Environmental Control; terms, defined. As used in sections 81-1501 to 81-1532, unless the context otherwise requires:

* * *

(14) Wastes shall mean sewage, industrial waste, and all other liquid, gaseous, solid, radioactive, or other substances which may pollute or tend to pollute any waters of the state;

(15) Refuse shall mean putrescible and nonputrescible solid wastes, except body wastes, and includes garbage, rubbish, ashes, incinerator ash, incinerator residue, street cleanings and solid market and industrial wastes;

* * *

(20) Water pollution shall mean the manmade or man-induced alteration of the chemical, physical, biological, and radiological integrity of water;

(21) Waters of the state shall mean all waters within the jurisdiction of this state including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state;

(22) Point source shall mean any discernible confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, or vessel or other floating craft, from which pollutants are or may be discharged;

(23) Effluent limitation shall mean any restriction established by the council on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into waters of the state, including schedules of compliance; and

(24) Schedule of compliance shall mean a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

* * *

81-1504. Department of Environmental Control; powers; duties. The department shall have and may exercise the following powers and duties:

* * *

(7) To issue, modify, or revoke orders: (a) Prohibiting or abating discharges of wastes into the air, waters or land of the state, and (b) requiring the construction of new disposal systems or any parts thereof or the modification, extension of or the adoption of other remedial measures to prevent, control or abate pollution;

* * *

81-1505. Environmental Control Council; rules and regulations; standards of air, land, and water quality. (1) In order to carry out the purposes of sections 81-1501 to 81-1532, the council shall adopt rules and regulations which shall set standards of air, water and land quality to be applicable to the air, waters and land of this state or portions thereof. Such standards of quality shall be such as to protect the public health and welfare. The council shall classify air, water and land contaminant sources according to levels and types of discharges, emissions and other characteristics which relate to air, water and land pollution, and may require reporting for any such class or classes. Such classifications and standards made pursuant to this section may be made for application to the state as a whole or to any designated area of the state, and shall be made with special reference to effects on health, economic and social factors, and physical effects on property. Such standards and classifications may be amended as determined necessary by the council.

(2) In adopting the classifications of waters and water quality standards, the primary purpose for such standards shall be to protect the public health and welfare, and the council shall give consideration to: (a) The size, depth, surface or underground area covered, the volume, direction and rate of flow, stream gradient, and temperature of the water; (b) the character of the area affected by such classification or standards, its peculiar suitability for particular purposes, conserving the value of the area, and encouraging the most appropriate use of lands within such area for domestic, agricultural, industrial, or recreational and aquatic life purposes; (c) the uses which have been made, are being made, or are likely to be made, of such waters for agricultural, transportation, domestic and industrial consumption, for fishing and aquatic culture, for the disposal of sewage, industrial waste and other wastes, or other uses within this state and, at the discretion of the council, any such uses in another state on interstate waters flowing through or originating in this state; and (d) the extent of present pollution or contamination of such waters which has already occurred or resulted from past discharges therein.

(3) In adopting effluent limitations or prohibitions the council shall give consideration to the type, class, or category of discharges, the quantities, rates, and concentrations of chemical,

physical, biological, and other constituents which are discharged from point sources into navigable or other waters of the state, including schedules of compliance, best practicable control technology, and best available control technology.

(4) In adopting standards of performance the council shall give consideration to the discharge of pollutants which reflect the greatest degree of effluent reduction which the council determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

(5) In adopting toxic pollutant standards and limitations the council shall give consideration to the combinations of pollutants, the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms.

(6) In adopting pretreatment standards the council shall give consideration to the prohibitions or limitations to noncompatible pollutants, prohibitions against the passage through a publicly-owned treatment works of pollutants which would cause interference with or obstruction to the operation of publicly-owned treatment works, damage to such works, and the prevention of the discharge of pollutants therefrom which are inadequately treated.

* * *

81-1506. Unlawful acts: permits for waste disposal. (1) It shall be unlawful for any person:

(a) To cause pollution of any air, waters or land of the state or to place or cause to be placed any wastes in a location where they are likely to cause pollution of any air, waters or land of the therein stated, and a certified copy thereof shall have like force and effect.

(6) The hearings provided for in this section may be conducted by the director, or by any member of the department acting in his behalf, or the director may designate hearing officers who shall have the power and authority to conduct such hearings in the name of the director at any time and place. A verbatim record of the proceedings of such hearings shall be taken and filed with the director, together with findings of fact and conclusions of law made by the director or hearing officer. Witnesses who are subpoenaed shall receive the same fees and mileage as in civil actions in the district court. In case of contumacy or refusal to obey a notice of hearing or subpoena issued under the provisions of this section, the district court shall have jurisdiction, upon application of the di-

rector, to issue an order requiring such person to appear and testify or produce evidence as the case may require and any failure to obey such order of the court may be punished by such court as contempt thereof.

If requested to do so by any party concerned with such hearing, the full stenographic notes, or tapes of an electronic transcribing device, of the testimony presented at such hearing shall be taken and filed. The stenographer shall, upon the payment of the stenographer's fee allowed by the court therefor, furnish a certified transcript of the whole or any part of the stenographer's notes to any party to the action requiring and requesting the same.

81-1508. Violations; penalties; injunctions. (1) Any person who shall violate any of the provisions of sections 81-1501 to 81-1532, or who fails to perform any duty imposed by the provisions of sections 81-1501 to 81-1532 shall:

(a) For any violation except of a permit or permit condition or limitation pursuant to the National Pollutant Discharge Elimination System, Public Law 92-500, be guilty of a misdemeanor and shall, upon conviction thereof, be fined not less than one hundred dollars nor more than five hundred dollars and a further fine of ten dollars per day together with costs, for each day he violates the provisions of or fails to perform any of the duties imposed by sections 81-1501 to 81-1532, and in default of the payment of such fine and costs the person, and if such person is a corporation, then the officers of such corporation may be imprisoned in the county jail for a period of not more than sixty days, and in addition thereto may be enjoined from continuing such violation. Each day upon which such violation occurs shall constitute a separate violation;

(b) For willful or negligent violation of water quality standards, effluent standards and limitations, for failure to obtain a permit or meet the filing requirements therefor, discharging without a permit or for violation of a permit or any permit condition or limitation under the National Pollutant Discharge Elimination System, Public Law 92-500, be guilty of a misdemeanor and shall, upon conviction thereof, be punished by a fine of not more than five thousand dollars for each day of such violation or by imprisonment for not more than six months in the county jail, and in assessing the amount of the fine the court shall consider the size of the operation and the degree and extent of the pollution;

(c) For refusing the right of entry and inspection to any authorized departmental representative, violation of any effluent standards and limitations, filing requirements, monitoring requirements, or water quality standards, or for failure to obtain a permit, or for violation of a permit or any permit condition or limitation or any rules, regulations, or orders of the director under the National Pollutant Discharge Elimination System, Public Law 92-500, be subject to a civil penalty of not more than five thousand dollars per day, the amount of such penalty to be based on the size of the operation and the degree and extent of the pollution; and

(d) For knowingly making any false statement, representation, or certification in any application, record, report, plan, or other document filed pursuant to the National Pollutant Discharge Elimination System, Public Law 92-500, or for falsifying, tampering with, or knowingly rendering inaccurate any monitoring device or method required under such system, be guilty of a misdemeanor and shall, upon conviction thereof, be punished by a fine of not more than five thousand dollars for each day that such violation occurs.

(2) Any person who violates any of the provisions of sections 81-1501 to 81-1532 or fails to perform any duty imposed by sections 81-1501 to 81-1532 or any regulation issued under sections 81-1501 to 81-1532 or who violates any order or determination of the director promulgated pursuant to sections 81-1501 to 81-1532, and causes the death of fish or other wildlife shall, in addition to the penalties provided in subsection (1) of this section, be liable to pay to the state an additional amount equal to the sum of money reasonably necessary to restock waters with fish or replenish such wildlife as determined by the director after consultation with the Game and Parks Commission. Such amount may be recovered by the director on behalf of the state in a civil action brought in the district court of the county wherein such violation or failure to perform any duty imposed by sections 81-1501 to 81-1532 occurred.

(3) In addition to the penalties provided by this section, the director, whenever he has reason to believe that any person, firm, or corporation is violating any provision of sections 81-1501 to 81-1532, any regulation promulgated thereunder, or any order of the director, may petition the district court for an injunction. It shall be the duty of each county attorney or the Attorney General to whom the director reports a violation to cause appropriate proceedings to be instituted without delay to assure compliance with the provisions of Chapter 81, article 15.

445.132 Legislative declaration.

1. The legislature finds that pollution of water in this state:

(a) Adversely affects public health and welfare;

(b) Is harmful to wildlife, fish and other aquatic life; and

(c) Impairs domestic, agricultural, industrial, recreational and other beneficial uses of water.

2. It is the public policy of this state and the purpose of NRS 445.131 to 445.354, inclusive, to:

(a) Restore and maintain the chemical, physical and biological integrity of water within this state;

(b) Prevent, reduce and eliminate pollution;

(c) Plan the development and use, including restoration, preservation and enhancement of land and water resources; and

(d) Consult and otherwise cooperate with other states, state and interstate agencies and the Federal Government in carrying out these objectives.

445.133 Definitions. As used in NRS 445.131 to 445.354, inclusive, unless the context otherwise requires, the terms defined in NRS 445.141 to 445.196, inclusive, have the meanings ascribed to them in those sections.

445.151 "Discharge" defined. "Discharge" means any addition of a pollutant or pollutants to water.

445.156 "Effluent limitation" defined. "Effluent limitation" means any applicable state and federal water quality standard or limitation which imposes any restriction or prohibition on quantities, rates and concentrations of chemical, physical, biological and other constituents which are discharged from point sources into any waters of the state.

445.171 "Person" defined.

1. "Person" means the state or any agency or institution thereof, any individual, partnership, firm, private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, municipality or other political subdivision of this state, any interstate body or any other legal entity.

2. "Person" includes the United States, to the extent authorized by federal law.

445.176 "Point source" defined. "Point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

445.178 "Pollutant" defined. "Pollutant":

1. Means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water;

2. Does not mean water, gas or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well is used either for facilitating production or for disposal purposes and if the department determines that such injection or disposal will not result in the degradation of ground or surface water resources.

445.181 "Pollution" defined. "Pollution" means the manmade or man-induced alteration of the chemical, physical, biological and radiological integrity of water.

445.191 "Waters of the state" defined. "Waters of the state" means all waters situated wholly or partly within or bordering upon this state, including but not limited to:

1. All streams, lakes, ponds, impounding reservoirs, marshes, water courses, waterways, wells, springs, irrigation systems and drainage systems; and
2. All bodies or accumulations of water, surface and underground, natural or artificial.

445.196 "Water quality standard or limitation" defined. "Water quality standard or limitation" means any applicable state and federal water quality standard or limitation, including but not limited to water quality criteria, water use classifications, implementation plans and compliance schedules, effluent standards and limitations, prohibitions, standards of performance and pretreatment standards.

445.221 Unlawful discharge of pollutant without permit. Except as authorized by a permit issued by the department under the provisions of NRS 445.131 to 445.354, inclusive, and regulations promulgated under such sections by the commission, it is unlawful for any person to discharge from any point source any pollutant into any waters of the state or any treatment works.

445.244 Water quality standards. Water quality standards shall be established by the commission:

1. To protect the public health or welfare;
2. To enhance the quality of water;
3. To increase the use and value of public water supplies;
4. To promote the propagation of fish and wildlife; and
5. To enhance recreational, agricultural, industrial, navigational and other beneficial uses.

445.247 Effluent limitations: Establishment; enforcement.

1. Effluent limitations shall be established and enforced for point sources, including publicly owned treatment works, which require the application of the best practicable control economically achievable.
2. In the case of a discharge into a publicly owned treatment plant in existence on July 1, 1977, or federally approved prior to June 30, 1974, effluent limitations shall be established and enforced which comply with applicable pretreatment requirements or are based upon secondary treatment as federally defined.

445.254 Unlawful to discharge radiological, chemical, biological warfare agent or high-level radioactive waste. It is unlawful to discharge any radiological, chemical or biological warfare agent or high-level radioactive waste into any waters of the state.

445.301 Radioactive and toxic wastes: Violations; penalties.

1. Any person who violates the provisions of NRS 445.287 to 445.301, inclusive, or the terms and conditions specified in a permit issued under NRS 445.287 to 445.301, inclusive, is guilty of a gross misdemeanor.

2. Each day of violation is a separate offense.

445.317 Violations: Remedies.

1. Whenever the director finds that any person is engaged or is about to engage in any act or practice which violates any provision of NRS 445.131 to 445.354, inclusive, or any rule, regulation or standard promulgated by the commission or permit issued by the department under NRS 445.131 to 445.354, inclusive, the director may:

(a) Issue an order pursuant to NRS 445.324;

(b) Commence a civil action pursuant to NRS 445.327 or 445.331; or

(c) Request the attorney general to institute by indictment or information a criminal prosecution pursuant to NRS 445.334 and 445.337.

2. Such remedies and sanctions for the violation of NRS 445.131 to 445.354, inclusive, are cumulative and the institution of any proceeding or action seeking any one of such remedies or sanctions does not bar any simultaneous or subsequent action or proceeding seeking any other of such remedies or sanctions.

445.321 Violations: Specific remedies do not impair other rights. No remedy or sanction provided for in NRS 445.131 to 445.354, inclusive, impairs any right which the director or any person has under any statute or common law.

445.324 Violations: Compliance orders.

1. Whenever the director finds that any person is engaged or is about to engage in any act or practice which constitutes or will constitute a violation of any provision of NRS 445.131 to 445.354, inclusive, or of any rule, regulation or standard promulgated by the commission, or of any permit or order issued by the department under NRS 445.131 to 445.354, inclusive, the director may issue an order:

(a) Specifying the provision or provisions of NRS 445.131 to 445.354, inclusive, or the regulation or order alleged to be violated or about to be violated;

(b) Indicating the facts alleged which constitute a violation thereof; and

(c) Prescribing the necessary corrective action to be taken and a reasonable time for completing that corrective action.

2. Any compliance order is final and is not subject to review unless the person or persons against whom such order is issued, within 30 days after the date such order is served, request by written petition a hearing before the commission.

445.327 Violations: Injunctive relief.

1. The director may seek injunctive relief in the appropriate court to prevent the continuance or occurrence of any act or practice which violates any provision of NRS 445.131 to 445.354, inclusive, or any permit, rule, regulation or order issued pursuant thereto.

2. On a showing by the director that a person is engaged, or is about to engage, in any act or any practice which violates or will violate any of the provisions of NRS 445.131 to 445.354, inclusive, or any rule, regulation, standard, permit or order issued thereunder, the court may issue, without bond such prohibitory and mandatory injunctions as the facts may warrant, including temporary restraining orders issued ex parte or, after notice and hearing, preliminary injunctions or permanent injunctions.

3. Failure to establish lack of an adequate remedy at law or irreparable harm is not a ground for denying a request for a temporary restraining order or injunction.

4. The court may require the posting of a sufficient performance bond or other security to assure compliance with the court order within the time prescribed.

445.331 Violations: Civil penalties.

1. Any person who violates or aids or abets in the violation of any provision of NRS 445.131 to 445.354, inclusive, or of any permit, rule, regulation, standard or final order issued thereunder, shall pay a civil penalty of not more than $10,000 for each day of such violation. The civil penalty imposed by this subsection is in addition to any other penalties provided pursuant to NRS 445.131 to 445.354, inclusive.

2. In addition to the penalty provided in subsection 1, the department may recover from such person actual damages to the state resulting from the violation of NRS 445.131 to 445.354, inclusive, or any rule, regulation or standard promulgated by the commission, or permit or final order issued by the department.

3. Damages may include any expenses incurred in removing, correcting and terminating any adverse effects resulting from the discharge of pollutants and may also include compensation for any loss or destruction of wildlife, fish or aquatic life and any other actual damages caused by the violation.

445.334 Violations: Criminal penalties.

1. Except as provided in NRS 445.337, any person who intentionally or with criminal negligence violates NRS 445.221 or 445.254, or any effluent limitation, standard of performance or toxic and pretreatment effluent limitation established pursuant to NRS 445.247 and 445.251, or the terms or conditions of any permit issued under NRS 445.227 to 445.241, inclusive, or any final order issued under NRS 445.324 is guilty of a gross misdemeanor and shall be punished by a fine of not more than $25,000 for each violation or by imprisonment in the county jail for not more than 1 year, or by both fine and imprisonment.

2. If the conviction is for a second violation of the provisions indicated in subsection 1, such person is guilty of a felony and shall be punished by a fine of not more than $50,000 for each violation or by imprisonment in the state prison for not less than 1 year nor more than 6 years, or by both fine and imprisonment.

3. The penalties imposed by subsections 1 and 2 are in addition to any other penalties, civil or criminal, provided pursuant to NRS 445.131 to 445.354, inclusive.

N.H. Rev. Stat. Ann. (Supp. 1973)

149:1 Definitions. As used herein the following terms, unless the context clearly indicates otherwise, shall have the following meanings:

I. "Sewage" means the water-carried waste products from buildings, public or private, together with such ground water infiltration and surface water as may be present.

II. "Industrial waste" means any liquid, gaseous or solid waste substance resulting from any process of industry, manufacturing trade or business or from development of any natural resources.

III. "Other wastes" means garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, ashes, offal, oil, tar, chemicals and other substances other than sewage or industrial wastes, and any other substance harmful to human, animal, fish or aquatic life.

IV. "Waste" means industrial waste and other wastes.

V. "Surface waters of the state" means streams, lakes, ponds and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses and other bodies of water, natural or artificial.

VI. "Commission" means the New Hampshire water supply and pollution control commission hereinafter established. [Amended 1967, 147:1, eff. July 1, 1967.]

VII. "Person" means any municipality, governmental subdivision, public or private corporation, individual, partnership or other entity.

VIII. "Ground waters" shall mean all areas below the top of the water table, including aquifers, wells and other sources of ground water. [Added 1973, 590:1, eff. Sept. 4, 1973.]

149:[illegible] a [New] Policies. It is hereby declared, as a matter of legislative intent, that the water supply and pollution control commission shall, in the administration and enforcement of this chapter strive to provide that all sources of pollution within the state shall be abated within such times and to such degrees as shall be required to satisfy the provisions of state law or applicable federal law, whichever is more stringent. To the extent not inconsistent with the foregoing nor the aims of any joint state-federal permit program that may from time to time be agreed upon and in force pursuant to this chapter and applicable federal law, the commission shall adhere to the following policies:

I. Insofar as practicable, the initial objective of the control program will be to obtain the installation of primary treatment (with adequate disinfection where sewage discharges are involved) for all discharges of sewage and industrial wastes.

II. The second objective will be to require the installation of secondary treatment whenever such additional treatment is necessary to protect the uses assigned to the particular stream classification.

III. The third objective, after all stream classification requirements throughout the state have been satisfied, will be to continue the program of pollution abatement by installing other forms of treatment desirable to maintain all surface waters of the state in as clean a condition as possible, consistent with available assistance funds and technological developments.

IV. Until such time as appropriate methodology and reasonable levels of financial assistance are made available, municipalities witn combined sewer systems shall not be required to provide treatment facilities with capacity greater than that necessary to handle anticipated peak dry weather flows.

149: 8 Enforcement of Classification.

I. After adoption of a given classification for a stream, lake, pond, tidal water, or section thereof, the commission shall enforce such classification by appropriate action in the courts of the state, and it shall be unlawful for any person or persons to dispose of any sewage, industrial, or other wastes, either alone or in conjunction with any other person or persons, in such a manner as will lower the quality of the waters of the stream, lake, pond, tidal water, or section thereof below the minimum requirements of the adopted classification. In any instance when the commission shall set a time limit for abatement of pollution under paragraph II, and it becomes apparent at any time during the compliance period that full compliance with the adopted classification will not be attained by the end of such period due to the failure of any person to take action reasonably calculated to secure abatement of the pollution within the time specified, the commission shall notify such person or persons in writing. If such person or persons shall fail or neglect to take appropriate steps to comply with the classification requirements within a period of thirty days after such notice, the commission shall seek appropriate action in the courts of the state. [Amended 1969, 337: 4, eff. Aug. 29, 1969.]

[No change in paragraph II.]

III. (a) It shall be unlawful for any person or persons to discharge or dispose of any sewage or waste to a surface water or ground water of the state without first obtaining a written permit from the commission. Applications for permits shall be made upon forms prescribed by the commission and shall contain such relevant information as the commission may require. The commission shall include in such permits effluent limitations, which may be based upon economic and technological factors, upon the classification enacted by the legislature, upon the projected best use of the surface waters downstream or upon the requirements of the Federal Water Pollution Control Act as amended from time to time, and all regulations, guidelines and standards promulgated thereunder, whichever provides the most effective means to abate pollution. The commission may also prescribe such other reasonable conditions as may be necessary or desirable in order to fulfill the purposes of this chapter or applicable federal law. Such permits shall contain, in the case of sources not in compliance with such effluent limitations at the time the permit is issued, reasonable compliance schedules including provision for periodic reporting by the source of increments of progress established therein. The commission may prescribe a monitoring program to be performed by the applicant with periodic reports to the commission, including, where appropriate in terms of the nature of the effluent, continuous monitoring. Permits shall be issued for a fixed term, not to exceed five years. The commission may revise, modify or suspend in whole or in part any permit, following hearing, upon a finding that just cause exists for such action. Further, whenever in its judgment, the purposes of this chapter will be best served, the commission may require as a condition to the granting of such permits that either the ownership (and operation) of the collection and treatment facilities involved be vested in the municipality (or any subdivision thereof) in which the system is located, if said municipality by legal action agrees thereto, or such other reasonable conditions as will ensure continuous and continuing operation and maintenance of the facilities. No permit shall be granted to utilize the entire assets of the surface water, or in any other case in which the commission determines that the grant of a permit would be inconsistent with the purposes of this chapter. Any determination by the commission under this paragraph shall be subject to appeal as provided for in RSA 149: 14.

(b) Notwithstanding any other provision of law, no permit to discharge sewage or waste shall be issued authorizing any of the following discharges:

(1) The discharge of any radiological, chemical or biological warfare agent or high-level radioactive waste;

(2) Any discharge into navigable waters which the secretary of the army of the United States acting through the chief of engineers determines would substantially impair anchorage and navigation;

(3) Any discharge to which the regional administrator of the United States Environmental Protection Agency, or his successor in jurisdiction, has objected in writing pursuant to any right to object provided such official in section 402(d) of the Federal Water Pollution Control Act, as amended from time to time; provided, that this subparagraph and subparagraph (2) above, shall not preclude the commission or any other person from availing itself of any judicial review of any such objection, or any determination by the secretary of the army, available under applicable federal law;

(4) Any discharge from a point source which is in conflict with a plan or amendment thereto approved pursuant to section 208(b) of the Federal Water Pollution Control Act, as amended from time to time. [Amended 1967, 147: 9, 27: 4. 1973, 590: 8, eff. Sept. 4, 1973.]

[No changes in paragraphs IV and V.]

VI. (a) It shall be unlawful for any person to put or place, or cause to be put or placed into a surface water of the state or on the ice over such waters, or on the banks of such waters, any bottles, glass, crockery, cans, scrap metal, junk, paper, garbage, tires, old automobiles or parts thereof, trees, or similar litter.

(b) For any violation of this paragraph any authorized member or agent of the commission shall order the immediate removal of material involved in the violation, by the person responsible for the material in question.

(c) If the person or persons responsible for a violation of subparagraph (a) above, refuses or fails to obey the order of any authorized member or agent of the commission, said commission or authorized member or agent may contract for the removal of the material in question and the cost of the removal shall be recoverable by the state in an action of debt brought by the attorney general in the name of the state.

(d) Any person responsible for a violation of subparagraph (a) above shall be guilty of a violation if a natural person, or guilty of a misdemeanor if any other person. [Added 1967, 145: 1. Amended 1973, 530: 11, eff. at 11:59 P.M., Oct. 31, 1973.]

149: 19 Penalties and Other Relief.

I. Any person who shall wilfully or negligently violate any provisions of this chapter, or any lawful regulation of the commission issued pursuant to this chapter, or any condition or limitation in a permit issued under this chapter or who knowingly makes any material false statement, representation or certification in any application, record, report, plan or other document required to be filed or maintained pursuant to this chapter or lawful regulation of the commission made pursuant to it, or who knowingly renders inaccurate, falsifies or tampers with any monitoring device or method required under this chapter or lawful regulation of the commission made under it or who knowingly fails, neglects or refuses to obey any lawful order of the commission, shall, notwithstanding the provisions of RSA Title LXII, be punished by a fine of not more than twenty-five thousand dollars for each day of such violation, or imprisoned for not more than six months or both.

II. Any person who shall violate any provisions of this chapter, or any lawful regulation of the commission issued pursuant to this chapter, or any condition or limitation in a permit issued under this chapter or who shall fail, neglect or refuse to obey any order lawfully issued pursuant to this chapter shall be subject to a civil penalty not to exceed ten thousand dollars per day of such violation.

III. The commission shall issue a written cease and desist order against any discharge or act in violation of this chapter or lawful regulation of the commission made under it or any condition of any permit lawfully issued by the commission, and any such discharge or act may be enjoined by the superior court upon application of the attorney general, whether the court is in term time or vacation.

IV. The provisions of RSA 651: 1 shall not apply to offenses under this chapter.

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N.J. Stat. Ann. (1966), as amended, (Supp. 1975)

58:10-1. Pollution of potable waters prohibited; "department"; penalty

No excremental matter, domestic, factory, workshop, mill, gas house or slaughterhouse refuse, creamery or cheese factory waste, garbage, dyestuff, coal tar, sawdust, tan bark, or other polluting matter shall be placed in, or discharged into, the waters of or placed or suffered to remain upon the ice or banks of, any river, brook, stream, or any tributary or branch thereof, lake, pond, well, spring or other reservoir, above the point from which any municipality shall or may obtain its supply of water for domestic use.

Whoever violates any of the provisions of this section shall be liable to a penalty of no more than $1,000.00 for the first violation and of no more than $3,000.00 for each subsequent violation ~~$100.00 for each offense~~, and each ~~week's~~ day's continuance of the violation shall constitute a separate ~~offense~~ violation.

Nothing in this section shall be construed to modify or otherwise affect any other law or statute conferring upon any local board of health the power or authority to institute any proceedings in any court of this State for the recovery of any penalty for, or obtaining any injunction against, the polution of any of the waters of this State.

58:10-2. Summary proceedings for recovery of penalty; jurisdiction; settlement; disposition of moneys recovered

Any penalty incurred under any of the provisions of section 58:10-1 of this Title may be recovered, with costs, in a summary proceeding pursuant to the Penalty Enforcement Law (N.J.S. 2A:58-1 et seq.) in the name of the department or of ~~any local board of health or corporation specified in said section 58:10-1.~~ the local board of health having jurisdiction over the place where such violation was committed, or the local board of health of any municipality or any authority, commission or other public body supplying water for sale for potable purposes, the potable water supply of which municipality, authority, commission or other public body is or may be affected by such violation.

~~Every county district court and municipal court shall have jurisdiction of such proceedings, within the territorial jurisdiction of the court, of any provision of section 58:10-1. Process shall be either in the nature of a summons or warrant.~~ The Superior Court, County Court, county district court and the municipal courts shall all have jurisdiction to enforce said Penalty Enforcement Law in connection with this act.

The department is hereby authorized and empowered to compromise and settle any claim for a penalty under this section in such amount in the discretion of the department as may appear appropriate and equitable under all of the circumstances, including, in the case of a first violation only, a rebate of any such penalty paid to the extent of 90% thereof where such person satisfies the department within one year or such other period as the department may deem reasonable that such violation has been removed or that such order or injunction has been met or satisfied, as the case may be.

When the plaintiff in any such proceeding is the department, or any corporation engaged in the business of supplying water for sale for potable purposes, the moneys, when recovered, shall be paid to the department and by it paid into the State treasury; and when the plaintiff in any such proceeding is the local board of health of a municipality, or any authority, commission or other public body supplying water for sale for potable purposes the moneys recovered shall be paid into the treasury of the municipality or the treasury of said authority, commission or other public body.

58:10–4. Injunctive relief against violations

If any person, corporation, municipality, or any municipal authority, shall violate any of the provisions of section 58:10-1 of this Title, the department, whether or not the penalty prescribed by said section 58:10-1 shall have been sued for or recovered, may institute a civil action in the Superior Court in the name of the State on the relation of the department for injunctive relief to prohibit the further violation of said section 58:10-1, and said court may proceed in the action in a summary manner.

The local board of health having jurisdiction over the place where such ~~offense~~ violation was committed, or the local board of health of any munici-

58:10–5. Pollution of fresh water prohibited; "fresh water" defined; exceptions; "person" defined

No person shall discharge or permit to be discharged into any fresh water any sewage, excremental matter, domestic refuse or other polluting matter. The term "fresh water", as used in this article, shall mean and include all water commonly known as fresh water and which may be used for human consumption, whether or not such water shall be found in a stream where the tide ebbs and flows.

Nothing in this article shall be construed to apply to the effluent or other matter discharged from any sewage disposal or sewage treatment plant approved by the department, or approved prior to April sixteenth, one thousand nine hundred and eight, by the state sewerage commission, which said effluent or other matter so discharged is hereby expressly declared not to be sewage, excremental matter, domestic refuse or other polluting matter. The word "person" as used in this article shall be construed to imply both the plural and the singular, as the case may demand, and shall include corporations, companies, associations, societies and municipal corporations, as well as individuals.

58:10–6. Penalty for violations; recovery

Whoever violates any of the provisions of this article shall be liable to a penalty of fifty dollars for each offense, the same to be recovered in an action at law by the department. All penalties so recovered shall be paid into the state treasury.

58:10–10. Discharge of effluents regulated; penalty

No effluent from any sewage disposal system or any plant for the purification or treatment of sewage or industrial wastes shall be discharged into any of the potable waters of this state, which, in the opinion of the department, is of such a character as will or may cause or threaten injury to the users of any of such waters.

If after written notice given to any person or municipality by the department to make such improvements as in its opinion are required in order that an effluent satisfactory to it may be discharged into such potable waters, the plans for which must be submitted to and approved by the department, such improvements are not made within the time specified in the notice, the person or municipality failing to make such improvements shall be liable to a penalty of one hundred dollars, and each week's continuance after the expiration of the time limit specified in the notice shall constitute a separate offense.

58:10-11. Penalties, recovery of; jurisdiction; process; disposition

Any penalty incurred under the provisions of section 58:10-10 of this Title may be recovered, with costs, in a summary proceeding in the name of the department pursuant to the Penalty Enforcement Law (N.J.S. 2A:58-1 et seq.).

Every county district court and municipal court shall have jurisdiction of such a proceeding, because of the violation, within the territorial jurisdiction of the court, of any provision of section 58:10-10. Process shall be either in the nature of a summons or warrant. All moneys recovered under the provisions of this article shall be paid into the State treasury.

58:10-12. Injunctive relief against violations

Upon the violation of any of the provisions of section 58:10-10 of this Title, the department may, whether or not the penalty prescribed by said section 58:10-10 shall have been sued for or recovered, institute a civil action in the Superior Court in the name of the State on the relation of the department, for injunctive relief to prohibit the further violation of said section 58:10-10.

N.M. Stat. Ann. (1967), as amended, (Supp. 1973)

75-39-2. Definitions.—As used in the Water Quality Act [75-39-1 to 75-39-12]:

A. "water contaminant" means any substance which alters the physical, chemical or biological qualities of water:

B. "water pollution" means introducing or permitting the introduction into water, either directly or indirectly, of one or more water contaminants in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life, or property, or to unreasonably interfere with the public welfare or the use of property;

C. "wastes" means sewage, industrial wastes or any other liquid, gaseous or solid substance which will pollute any waters of the state;

* * *

G. "water" means all water including water situated wholly or partly within or bordering upon the state, whether surface or subsurface, public or private, except private waters that do not combine with other surface or subsurface water;

H. "person" means the state or any agency, institution or political subdivision thereof, any public or private corporation, individual, partnership, association or other entity, and includes any officer, or governing or managing body of any political subdivision or public or private corporation;

* * *

75-39-4.1. Permits—Appeals—Penalty.—A. By regulation the commission may require persons to obtain from a constituent agency designated by the commission a permit for the discharge of any water contaminant either directly or indirectly into water.

* * *

P. A person who violates any provision of this section is guilty of a misdemeanor and shall be punished by a fine of not less than three hundred dollars ($300) nor more than ten thousand dollars ($10,000) per day, or by imprisonment for not more than one [1] year, or both.

Q. In addition to the remedy provided above, the trial court may impose a civil penalty for a violation of any provision of this section not exceeding five thousand dollars ($5,000) per day.

* * *

75-39-9. Abatement of water pollution.—A. If, as a result of investigation, a constituent agency has good cause to believe that any person is violating or threatens to violate any regulation of the commission for the enforcement of which the agency is responsible, and, if the agency is unable within a reasonable time to obtain voluntary compliance, the commission may initiate proceedings in the district court of the county in which the violation occurs. The commission may seek injunctive relief against any violation or threatened violation of regulations, and such relief shall be subject to the continuing jurisdiction and supervision of the district court and the court's powers of contempt. The attorney general shall represent the commission.

B. In addition to the remedies provided in this section, the district court may impose civil penalties not exceeding one thousand dollars ($1,000) for each violation of the Water Quality Act [75-39-1 to 75-39-12] or any regulation of the commission, and may charge the person convicted of such violation with the reasonable cost of treating or cleaning up waters polluted. Each day during any portion of which a violation occurs constitutes a separate violation.

C. Any party aggrieved by any final judgment of the district court under this section may appeal to the court of appeals as in other civil actions.

D. As an additional means of enforcing the Water Quality Act or any regulation of the commission, the commission may accept an assurance of discontinuance of any act or practice deemed in violation of the Water Quality Act or any regulation adopted pursuant thereto, from any person engaging in, or who has engaged in, such act or practice, signed and acknowledged by the chairman of the commission and the party affected. Any such assurance shall specify a time limit during which such discontinuance is to be accomplished.

N.Y. Environmental Conservation Law, (McKinney's 1972), as amended, (McKinney's Supp. 1974)

§ 17-0101. Declaration of policy

It is declared to be the public policy of the state of New York to maintain reasonable standards of purity of the waters of the state consistent with public health and public enjoyment thereof, the propagation and protection of fish and wild life, including birds, mammals and other terrestrial and acquatic [1] life, and the industrial development of the state, and to that end require the use of all known available and reasonable methods to prevent and control the pollution of the waters of the state of New York.

§ 17-0103. Statement of purpose

It is the purpose of this article to safeguard the waters of the state from pollution by preventing any new pollution and abating pollution existing when the predecessor of this chapter was enacted, under a program consistent with the declaration of policy stated in section 17-0101.

§ 17-0105. Definitions applicable to portions of this article

When used in titles 1 to 11, inclusive, and title 19 of this article:

1. "Person" or "persons" means any individual, public or private corporation, political subdivision, government agency, municipality, industry, co-partnership, association, firm, trust, estate or any other legal entity whatsoever.

2. "Waters" or "waters of the state" shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial limits of the state of New York and all other bodies of surface or underground water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters).

* * *

10. "Disposal system" means a system for disposing of sewage, industrial waste or other wastes, and including sewer systems and treatment works.

11. "Outlet" means the terminus of a sewer system, or the point of emergence of any water-borne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the state.

12. "Shellfish" includes oysters, scallops, claims,[2] mussels and other aquatic mollusks, and lobsters, shrimp, crawfish, crabs and other aquatic crustaceans.

13. "State Pollutant Discharge Elimination System" or "SPDES" means the system established pursuant hereto for issuance of permits authorizing discharges to the waters of the state.

14. "National Pollutant Discharge Elimination System" or "NPDES" means the national system for the issuance of permits under the Federal Water Pollution Control Act.[1]

15. "Effluent standard and/or limitation" means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents which are discharged into or allowed to run from an outlet or point source into waters of the state promulgated by the federal government.

16. "Point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating stock from which pollutants are or may be discharged.

17. "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, and agricultural waste discharged into water.

18. "Schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

19. "Toxic pollutant" means those pollutants, or combination of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly through food chains, will, on the basis of information available to the department, cause death, disease, behavorial abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations, in such organisms or their offspring.

20. "New source" means any source, the construction of which is commenced after the publication of a standard or performance applicable to such source under the provisions of the Act,[1] provided such standard is thereafter promulgated and adopted.

21. "Standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the federal government determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

22. "Toxic and pretreatment effluent standard" means standards adopted by the federal government pursuant to section 307 of the Act.[2]
As amended L.1973, c. 801, § 2.

§ 17–0303. General powers and duties applicable to portions of this article

1. The provisions of this section shall apply only to titles 1 to 11, inclusive, and title 19 of this article.

2. The department shall have administrative jurisdiction to abate and prevent the pollution of waters of the state in the manner herein provided in accordance with the classification of waters adopted by the department pursuant to section 17–0301.

3. The department, acting through the commissioner may, from time to time, adopt, amend, or cancel administrative rules and regulations governing the procedure to be followed with respect to hearing, filing of reports, the issuance of permits, and all other matters relating to procedure, and generally, may make such

administrative rules and regulations, and do and perform any and all acts, not inconsistent with the provisions of this article listed in subdivision 1 of this section, as may be necessary or proper to carry into effect such provisions of this article listed in subdivision 1 of this section, and may make, amend and repeal rules and regulations for the storage of liquids likely to pollute the waters of the state including, but not limited to, standards for the construction, installation, maintenance, protection and diking of tanks used to store any such liquids and their associated structures, piping, valves, fittings, fixtures and outlets, in conjunction with the promulgation of which, the commissioner shall consider codes and practices of industries concerned with the handling and storage of such liquids and the time required for persons engaged in such industries to conform with such rules and regulations. Such rules and regulations, before becoming effective, shall be filed with the secretary of state for publication in the "Official Compilation of Codes, Rules and Regulations of the State of New York" published pursuant to section 120 of the Executive Law.

4. The commissioner is hereby authorized to:

a. Hold public hearings, receive pertinent and relevant proof from any party in interest who appears at such hearing, compel the attendance of witnesses, make findings of fact and determinations, and assess such penalties therefor as are hereinafter prescribed, all with respect to the violations of the provisions of this article listed in subdivision 1 of this section, or the orders issued by the commissioner;

b. Make, modify or cancel orders requiring the discontinuance of the discharge of sewage, industrial waste or other wastes into any waters of the state in accordance with the provisions of this article listed in subdivision 1 of this section, and specifying the conditions and time within which such discontinuance must be accomplished.

c. Institute or cause to be instituted in a court of competent jurisdiction proceedings to compel compliance with the provisions of this article listed in subdivision 1 of this section or the determinations and orders of the commissioner;

d. Issue or deny permits, under such conditions as may be prescribed for the prevention and abatement of pollution, for the discharge of sewage, industrial waste or other wastes, or for the installation or operation of disposal systems or parts thereof;

e. Continue any permit heretofore or hereafter issued under the provisions of this article listed in subdivision 1 of this section, or under the authority of laws previously enacted and thereafter repealed, whenever, after hearing thereon, the commissioner determines that such continuation is necessary or desirable to prevent or abate pollution of any waters of the state;

f. Revoke or modify any permit heretofore or hereafter issued under the provisions of this article listed in subdivision 1 of this section, or under the authority of laws previously enacted and thereafter repealed, whenever, after hearing thereon, the commissioner determines that such revocation or modification is necessary or desirable to prevent or abate pollution of any waters of the state;

g. Conduct such investigations as may be deemed advisable and necessary to carry out the intents and purposes of the provisions of this article listed in subdivision 1 of this section;

h. Settle or compromise, with the approval of the attorney general, any action or cause of action for the recovery of a penalty under the provisions of this article listed in subdivision 1 of this section as he may deem advantageous to the state;

i. Perform such other and further acts as may be necessary, proper or desirable, to carry out effectively the duties and responsibilities prescribed in the provisions of this article listed in subdivision 1 of this section.

* * *

§ 71–0505. Suits and prosecution

1. The commissioner shall have the power to bring actions suits or proceedings as in his judgment may be necessary or proper to perform any of the powers, functions or duties imposed upon him or upon the department or any division thereof by any of the provisions of this chapter listed in section 71–0501 or under titles 5 through 15 inclusive and title 33 of this article or to prevent the violation by any person, public or private, of any of the provisions thereof; and shall have the power to defend such actions, suits or proceedings as may arise through the performance of any of the powers, duties or functions imposed upon him or upon the department or any division thereof.

2. It shall be the duty of the Attorney General, when requested by the department, to appoint an Assistant Attorney General. and such assistants as may be necessary and assign them to the department. Such Assistant Attorney General and assistants shall receive salaries, to be fixed by the Attorney General within the appropriation therefor. It shall be the duty of such assistant, in the name of the Attorney General, to conduct all prosecutions for penalties imposed by the provisions of this chapter listed in section 71–0501 or under titles 5 through 15 inclusive and title 33 of this article and to bring all actions, suits and proceedings, which the department shall be authorized to institute and maintain, and to defend all actions, suits and proceedings brought

against the department, its officers or employees of or on account of any act or any thing done by the said department, its officers or employees when such act or thing was, in the opinion of the Attorney General, done in the discharge of any official duty or in reasonable exercise of authority.

3. No action, suit or proceeding in which the title to lands of the state in forest preserve counties shall be involved shall be withdrawn or discontinued, nor shall judgment therein against the state be entered on consent except on special permission of the court and after application made in open court, on which application all the terms and conditions of the settlement shall be [illegible] stated in writing and the reasons therefor set forth at length.

§ 71-1929. Violations; civil liability

1. A person who violates any of the provisions of, or who fails to perform any duty imposed by titles 1 through 11 inclusive and title 19 of article 17, or who violates a condition of a permit heretofore or hereafter issued pursuant to title 8 of article 17 or subdivision 4 of section 17-0701, or who violates a determination or order of the department or of the commissioner, promulgated pursuant to titles 1 through 11 inclusive and title 19 of article 17 shall be liable to a penalty of not to exceed ten thousand dollars per day of such violation, and, in addition thereto, such person may be enjoined from continuing such violation as hereinafter provided. Violation of a permit condition shall constitute grounds for revocation of such permit, which revocation may be accomplished either as provided in paragraph f of subdivision 4 of section 17-0303 or by order of judgment of the supreme court as an alternate or additional civil penalty in an action brought pursuant to subdivision 3 of this section.

2. Any penalties for violations of titles 1 through 11 inclusive and title 19 of article 17 resulting in the killing of fish or shellfish, shall be credited to the conservation fund established by section 83 of the State Finance Law and shall be available for the uses and purposes of such fund.

3. The penalties provided by subdivisions one and two shall be recoverable in an action brought by the Attorney General.

4. An action or cause of action for the recovery of a penalty under this title may be settled or compromised by the Attorney General after proceedings are brought to recover such penalties and prior to the entry for judgment therefor.

§ 71-1933. **Violations; criminal liability** /

1. Any person who shall wilfully violate any of the provisions of titles 1 through 11 inclusive and title 19 of article 17 or any final determination or order of the commissioner made pursuant to titles 1 through 11 inclusive and title 19 of article 17 shall be guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not less than five hundred dollars nor more than two thousand five hundred dollars or by imprisonment for a term of not more than one year, or by both such fine and imprisonment, for each separate violation. Each day upon which such violation occurs shall constitute a separate violation.

2. No prosecution under this section shall be instituted until after final disposition of an appeal or review, if any, provided by section 17-0909 or its predecessor, section 1244 of the Public Health Law.

3. All prosecutions under this section shall be instituted by the department or the commissioner and shall be conducted by the Attorney General in the name of the people of the state of New York.

4. In the prosecution of any criminal proceeding under this section by the Attorney General and, in any proceeding before a grand jury in connection therewith, the Attorney General shall exercise all the powers and perform all the duties which the District Attorney would otherwise be authorized or required to exercise or perform, and in such a proceeding the District Attorney shall exercise such powers and perform such duties as are requested of him by the Attorney General.

N.C. Gen. Stat. (1973), as amended, (Supp. 1974)

§ 143-211. Declaration of public policy. — It is hereby declared to be the public policy of this State to provide for the conservation of its water and air resources. Furthermore, it is the intent of the General Assembly, within the context of this Article, to achieve and to maintain for the citizens of the State a total environment of superior quality. Recognizing that the water and air resources of the State belong to the people, the General Assembly affirms the State's ultimate responsibility for the preservation and development of these resources in the best interest of all its citizens and declares the prudent utilization of these resources to be essential to the general welfare. It is the purpose of this Article to create an agency which shall administer a program however, to be subject to the procedural requirements of this Article.

§ 143-214.2. Prohibited discharges. — (a) The discharge of any radiological, chemical or biological warfare agent or high-level radioactive waste to the waters of the State is prohibited.

(b) The discharge of any wastes to the subsurface or groundwaters of the State by means of wells is prohibited.

§ 143-214.2. Prohibited discharges.

(c) The discharge of wastes, including thermal discharges, to the open waters of the Atlantic Ocean over which the State has jurisdiction are prohibited, except where such discharges are permitted pursuant to regulation duly adopted by the Environmental Management Commission.

§ 143-215.6. Enforcement procedures. — (a) Civil Penalties. —

(1) A civil penalty of not more than five thousand dollars ($5,000) may be assessed by the Environmental Management Commission against any person who:
  a. Violates any classification, standard or limitation established pursuant to G.S. 143-214.1 or G.S. 143-215.
  b. Is required but fails to apply for or to secure a permit required by G.S. 143-215.1, or who violates or fails to act in accordance with the terms, conditions, or requirements of such permit.
  c. Violates or fails to act in accordance with the terms, conditions, or requirements of any special order or other appropriate document issued pursuant to G.S. 143-215.2.
  d. Fails to file, submit, or make available, as the case may be, any documents, data or reports required by this Article.
  e. Refuses access to the Environmental Management Commission or its duly designated representatives to any premises for the purpose of conducting any investigations provided for in this Article.
  f. Violates any duly adopted regulation of the Environmental Management Commission implementing the provisions of this Article.

(2) If any action or failure to act for which a penalty may be assessed under this subsection is willful, the Environmental Management Commission may assess a penalty not to exceed five thousand dollars ($5,000) per day for so long as the violation continues.

(3) The Environmental Management Commission may assess the penalties provided for in this subsection. Any person assessed shall be notified of the assessment by registered or certified mail, and the notice shall specify the reasons for the assessment. If the person assessed fails to pay the amount of the assessment to the Department of Natural and Economic Resources within 30 days after receipt of notice, or such longer period, not to exceed 180 days, as the Environmental

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Management Commission may specify, the Environmental Management Commission may institute a civil action in the superior court of the county in which the violation occurred or, in the discretion of the Environmental Management Commission, in the superior court of the county in which the person assessed resides or has his or its principal place of business, to recover the amount of the assessment. In any such civil action, the scope of the court's review of the Environmental Management Commission's action (which shall include a review of the amount of the assessment), shall be as provided in G.S. 143-315.

(b) Criminal Penalties. —

(1) Any person who willfully or negligently violates any classification, standard or limitation established pursuant to G.S. 143-214.1 or G.S. 143-215; any term, condition, or requirement of a permit issued pursuant to G.S. 143-215.1 or of a special order or other appropriate document issued pursuant to G.S. 143-215.2; or any regulation of the Environmental Management Commission implementing any of the said sections, shall be guilty of a misdemeanor punishable by a fine not to exceed twenty-five thousand dollars ($25,000) per day of violation, or by imprisonment not to exceed six months, or by both.

(2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Article or regulations of the Environmental Management Commission implementing this Article, or who falsifies, tampers with, or knowingly renders inaccurate any recording or monitoring device or method required to be operated or maintained under this Article or regulations of the Environmental Management Commission implementing this Article, shall be guilty of a misdemeanor punishable by a fine not to exceed ten thousand dollars ($10,000), or by imprisonment not to exceed six months, or by both.

(3) Any person convicted of an offense under either subdivision (1) or subdivision (2) of this subsection following a previous conviction under such subdivision shall be subject to a fine, or imprisonment, or both, not exceeding twice the amount of the fine, or twice the term of imprisonment provided in the subdivision under which the second or subsequent conviction occurs.

(4) For purposes of this subsection, the term "person" shall mean, in addition to the definition contained in G.S. 143-213, any responsible corporate or public officer or employee; provided, however, that where a vote of the people is required to effectuate the intent and purpose of this Article by a county, city, town, or other political subdivision of the State, and the vote on the referendum is against the means or machinery for carrying said intent and purpose into effect, then, and only then, this subsection shall not apply to elected officials or to any responsible appointed officials or employees of such county, city, town, or political subdivision.

(c) Injunctive Relief. — Whenever the Department of Natural and Economic Resources has reasonable cause to believe that any person has violated or is threatening to violate any of the provisions of this Article or any regulations adopted by the Environmental Management Commission implementing the provisions of this Article, the Department of Natural and Economic Resources may, either before or after the institution of any other action or proceeding authorized by this Article, request the Attorney General to institute a civil action in the name of the State upon the relation of the Department of Natural and

Economic Resources for injunctive relief to restrain the violation or threatened violation and for such other and further relief in the premises as the court shall deem proper. The Attorney General may institute such action in the superior court of the county in which the violation occurred or may occur or, in his discretion, in the superior court of the county in which the person responsible for the violation or threatened violation resides or has his or its principal place of business. Upon a determination by the court that the alleged violation of the provisions of this Article or the regulations of the Environmental Management Commission has occurred or is threatened, the court shall grant the relief necessary to prevent or abate the violation or threatened violation. Neither the institution of the action nor any of the proceedings thereon shall relieve any party to such proceedings from any penalty prescribed for violation of this Article.

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N.D. Cent. Code (Supp. 1973)

61-28-01. Statement of policy.—It is hereby declared to be the policy of the state of North Dakota to act in the public interest to protect, maintain and improve the quality of the waters in the state for continued use as public and private water supplies, propagation of wildlife, fish and aquatic life, and for domestic, agricultural, industrial, recreational and other legitimate beneficial uses, to require necessary and reasonable treatment of sewage, industrial, or other wastes and to cooperate with other agencies in the state, agencies of other states and the federal government in carrying out these objectives.

61-28-02. Definitions.—For the purposes of this chapter, the following words and phrases shall have the meanings ascribed to them in this section:

1. "Pollution" means such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.
2. "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive, or other substances which may pollute or tend to pollute any waters of the state.

* * *

61-28-05. Rules, regulations and standards.—The department may adopt rules and regulations and, jointly with the state water pollution control board, shall hold public hearings to consider the adoption, amendment or repeal of rules, regulations, and standards of quality of the waters of the state as provided in this chapter, and notice of such public hearing or hearings shall be given by publication of a notice of such hearings or hearing in each of the official county newspapers within the state of North Dakota by at least two publications, one week apart, the last publication being at least ten days prior to said hearing and which hearing shall be held in the state capitol in Bismarck, at which hearings interested parties may present witnesses and other evidence pertinent and relevant to proposed rules, regulations, and standards, and the state water pollution control board shall consider any other matters related to the purposes of this chapter and shall advise the department concerning the administration of this chapter.

61-28-06. Prohibitions.—

1. It shall be unlawful for any person:
   a. To cause pollution of any waters of the state or to place or cause to be placed any wastes in a location where they are likely to cause pollution of any waters of the state; and
   b. To discharge any wastes into any waters of the state which reduce the quality of such waters below the water quality standards established therefor by the department.

2. It shall be unlawful for any person to carry on any of the following activities unless he holds a valid permit for the disposal of all wastes which are, or may be, discharged thereby into the waters of the state:
   a. The construction, installation, modification or operation of any disposal system or part thereof or any extension or addition thereto without plans and specifications previously approved by the department and the state water commission.
   b. Cause a material increase in volume or strength of any wastes in excess of the permissive discharges specified under existing approved plans.
   c. The construction, installation, or operation of any industrial, commercial, or other establishment or any extension or modification or addition thereof, the operation of which would cause an increase in the discharge of wastes into the waters of the state or would otherwise alter the physical, chemical, or biological properties of any waters of the state in any manner not already lawfully authorized.
   d. **The construction or use of any new outlet for the discharge of any wastes into the waters of the state.**

61-28-08. Penalties—Injunctions.—

1. Any person who willfully violates this chapter or any permit condition or limitation implementing this chapter shall be punished by a fine of not more than twenty-five thousand dollars per day of violation, or by imprisonment in the county jail for not more than one year, or both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than fifty thousand dollars per day of violation, or by imprisonment in the county jail for not more than two years, or by both.
2. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under this chapter or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this chapter, shall upon conviction, be punished by a fine of not more than ten thousand dollars or by imprisonment in the county jail for not more than six months, or by both.
3. Any person who violates this chapter, or any permit condition or limitation implementing the chapter, and any person who violates any order issued by the department shall be subject to a civil penalty not to exceed ten thousand dollars per day of such violation.
4. The department may, in accordance with the laws of this state governing injunctions or other process, maintain an action in the name of the state against any person violating any provision of this chapter or any rule, regulation or order issued thereunder.

Ohio Rev. Stat. Ann. (Baldwin 1974), as amended, (Supp. 1975)

6111.01 Definitions.

As used in sections 6111.01 to 6111.08, inclusive, and sections 6111.31 to 6111.38, inclusive, of the Revised Code:

(A) "Pollution" means the placing of any noxious or deleterious substances in any waters of the state or affecting the properties of any waters of the state in a manner which renders such waters harmful or inimical to the public health, or to animal or aquatic life, or to the use of such waters for domestic water supply, or industrial or agricultural purposes, or for recreation.

(B) "Sewage" means any substance that contains any of the waste products or excrementitious or other discharge from the bodies of human beings or animals, which pollutes the waters of the state.

(C) "Industrial waste" means any liquid, gaseous, or solid waste substance resulting from any process of industry, manufacture, trade, or business, or from the development, processing, or recovery of any natural resource, together with such sewage as is present, which pollutes the waters of the state.

(D) "Other wastes" means garbage, refuse, decayed wood, sawdust, shavings, bark, and other wood debris, lime (except hydrated or dehydrated lime), sand, ashes, offal, night soil, oil, tar, coal dust, or silt, and other substances which are not included within the definitions of sewage and industrial waste set forth in this section, which pollute the waters of the state.

6111.04 Acts of pollution prohibited; exceptions

No person shall cause pollution or place or cause to be placed any sewage, industrial waste, or other wastes in a location where they cause pollution of any waters of the state, and any such action is hereby declared to be a public nuisance, except in such cases where the director of environmental protection has issued a valid and unexpired permit, or renewal thereof, as provided in sections 6111.01 to 6111.08 of the Revised Code, or an application for renewal is pending.

No person to whom a permit has been issued shall place or discharge, or cause to be placed or discharged, in any waters of the state any sewage, industrial waste, or other wastes in excess of the permissive discharges specified under such existing permit without first receiving a permit from the director to do so.

No person who is discharging or causing the discharge of any sewage, industrial waste, or other wastes into the waters of the state shall continue or cause the continuance of such discharge, without first obtaining a permit therefor issued by the director. The director shall prescribe by regulation a reasonable filing period within which applications may be filed to obtain permits for existing discharges that have not been authorized by permit.

The director may require the submission of such plans, specifications, and other information as he deems relevant in connection with the issuance of permits.

This section does not apply to:

(A) Waters used in washing sand, gravel, other aggregates, or mineral products, when such washing and the ultimate disposal of the water used in such washing, including any sewage, industrial waste, or other wastes contained in such waters, are entirely confined to the land under the control of the person engaged in the recovery and processing of such sand, gravel, other aggregates, or mineral products, and do not result in the pollution of waters of the state;

(B) Water, gas, or other material injected into a well to facilitate the production of oil or gas or for disposal purposes, or water derived in association with oil or gas production and disposed of in a well, in compliance with a permit issued under Chapter 1509. of the Revised Code. This division does not authorize, without a permit, any discharge that is prohibited by, or for which a permit is required by, regulation of the United States environmental protection agency;

(C) Application of any materials to land for agricultural purposes or runoff of such materials from such application. This division does not authorize, without a permit, any discharge that is prohibited by, or for which a permit is required by, regulation of the United States environmental protection agency;

(D) The excrement of domestic and farm animals defecated on land or runoff therefrom into any waters of the state. This division does not authorize, without a permit, any discharge that is prohibited by, or for which a permit is required by, regulation of the United States environmental protection agency;

(E) The discharge of sewage, industrial waste, or other wastes into a sewerage system maintained by the state or a political subdivision;

(F) Septic tanks or any other disposal systems for the disposal or treatment of sewage from single-family, two-family, or three-family dwellings in compliance with the sanitary code and section 1541.21 or 3707.01 of the Revised Code. This division does not authorize, without a permit, any discharge that is prohibited by, or for which a permit is required by, regulation of the United States environmental protection agency.

The holder of a permit issued under section 402 (a) of the "Federal Water Pollution Control Act Amendments of 1972," 86 Stat. 880, 33 U.S.C.A. 1342, need not obtain a permit for a discharge authorized by such permit until its expiration date. The director of environmental protection shall administer and enforce such permits within this state, and may modify the terms and conditions thereof in accordance with division (J) of section 6111.03 of the Revised Code.

6111.07 (1261-1h). Prohibition; prosecution; injunction.

(A) No person shall violate or fail to perform any duty imposed by, sections 6111.01 to 6111.08, inclusive, of the Revised Code, or violate any order of the water pollution control board promulgated pursuant to such sections. Each day such violation continues after a conviction for a violation of such sections or order of the board and the final determination thereof is a separate offense; provided the court may grant a reasonable period of time for compliance.

Any person convicted of violating such sections may also be enjoined, as provided in division (B) of this section, from continuing such violation.

(B) The attorney general, upon the request of the board, shall prosecute any person who violates, or who fails to perform any duty imposed by, sections 6111.01 to 6111.08, inclusive, of the Revised Code, or who violates any order of the board promulgated pursuant to such sections.

The attorney general, upon request of the board, shall bring an action for an injunction against any person violating or threatening to violate such sections, or violating or threatening to violate any order of the board promulgated pursuant to such sections. In an action for injunction to enforce any final order of the board brought pursuant to this section, the finding by the board, after hearing, is prima-facie evidence of the facts found therein.

6111.99 Penalties

(A) Whoever violates section 6111.04, 6111.042, 6111.05, or division (A) of section 6111.07 of the Revised Code shall be fined not more than twenty-five thousand dollars or imprisoned not more than one year, or both.

(B) Whoever violates sections 6111.13 to 6111.15, 6111.45, or 6111.46 of the Revised Code, shall be fined not more than five hundred dollars.

(C) Whoever violates division (C) of section 6111.07 of the Revised Code shall be fined not more than twenty-five thousand dollars.

(D) Whoever violates section 6111.42 of the Revised Code shall be fined not more than one hundred dollars for a first offense; for each subsequent offense such person shall be fined not more than one hundred fifty dollars.

(E) Whoever violates section 6111.44 of the Revised Code shall be fined not more than one hundred dollars.

Okla. Stat. Ann. (1970), as amended, (Supp. 1974)

§ 932.1 Definitions

As used in this act, unless a different meaning is required by the context, the following words and phrases shall have the following meanings:

(a) "Environment" includes the outdoor atmosphere, on and under the surface of the land, the land, and the waters of the state.

(b) "Board" is the Pollution Control Coordinating Board.

(c) "Director" is the Director of the State Department of Pollution Control.

(d) "Pollution" is the presence in the environment of any substances or contaminants, including noise, in quantities which are or may be potentially harmful or injurious to human health, welfare or esthetic sensibilities or to property, animals or plant life.

(e) "Waters" shall include but not be limited to rivers, lakes, streams, springs, impoundments and all other waters or bodies of water, including fresh, brackish, saline, surface or underground. Waters owned entirely by one person other than the state are included only in regard to possible discharge on other property or water. Underground waters include but are not limited to all underground waters passing through pores of rock or soils or flowing through in channels, whether man-made or natural.

(f) "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive or other substances which may pollute or tend to pollute any waters, the atmosphere or lands of this state.

(g) "Treatment works" and "disposal systems" mean any plant or other works used for the purpose of treating, stabilizing or holding wastes.

(h) "Sewerage system" means pipelines or conduits, pumping stations, force mains and all other structures, devices, appurtenances and facilities used for collecting or conducting wastes to an ultimate point for treatment or disposal.

(i) "Plant" is any unit operation, complex, area or multiple unit operations that produce, process or cause to be processed any materials, the processing of which can, or may, cause air, water, noise or land pollution.

(j) "Source" is any and all points of origin of excessive noises or contaminants whether publicly or privately owned or operated.

(k) "Person" means the state or any agency or institution thereof, any municipality or political subdivision, public or private corporation, individual, partnership, association or other entity, and includes any officer or governing or managing body of any municipality, political subdivision or public or private corporation.

(*l*) "Non-point source" is the contamination of the environment with a pollutant(s) whose specific point of origin may not be well defined. Laws 1971, c. 338, § 2, operative July 1, 1971. Amended by Laws 1974, c. 78, § 1.

§ 935. Minimum standard of water quality

(a) The established water quality standards and designated beneficial uses of the waters of the state in effect on the effective date of this act shall be the minimum standard of water quality until otherwise designated by the Board.

(b) When the disposal of waste through a disposal system or the discharge either directly or indirectly of any untreated or inadequately treated wastes reduces the quality of any waters of the state below such standards, it shall be prima facie evidence of water pollution and the Board shall request the appropriate state agency to take immediate action to secure such corrections as necessary to prohibit further pollution. Amended by Laws 1971, c. 338, § 7, operative July 1, 1971.

§ 937. Penalties—Injunctions ✓

(a) Any person who knowingly or willfully violates any properly promulgated order of the Pollution Control Coordinating Board shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not more than Five Hundred Dollars ($500.00) per day for each of the first ten (10) days of continuous violation and One Thousand Dollars ($1,000.00) for each day thereafter, or by imprisonment for a term of not more than ninety (90) days or by both such fine and imprisonment. Each and every day the violation occurs shall constitute a separate violation.

(b) Any person, firm or corporation who violates any of the provisions of, or fails to perform any duty imposed by this act or regulation issued hereunder, or who violates any order or determination of the Board promulgated pursuant to this act, which causes the death of fish or other wildlife shall, in addition to the penalties provided in subsection (a), be liable to pay to the state an amount equal to the sum of money reasonably necessary to restock such waters or replenish such wildlife and all cost incurred in investigating, locating or establishing the responsible person, firm or corporation as determined by the Oklahoma Wildlife Conservation Commission and approved by the Board. Such amount may be recovered by the Board on behalf of the state in a civil action brought in the district court and shall be divided among the agencies in accordance with the expenses incurred, as determined by the Board.

(c) It shall be the duty of the Attorney General on the request of the Board to bring an action for an injunction against any person, firm or corporation violating the provisions of this act or violating any order or determination of the Board. In any action for an injunction brought pursuant to this section, any finding of the Board after hearing on due notice shall be prima facie evidence of the fact or facts found therein.

(d) Upon a showing by the Attorney General in behalf of the Board that such person is violating or is about to violate the provisions of this act or is violating or is about to violate any order or determination of the Board, an injunction shall be granted without the necessity of showing a lack of adequate remedy at law.

Amended by Laws 1971, c. 338, § 10, operative July 1, 1971.

468.035 Functions of department. (1) Subject to policy direction by the commission, the department:

(a) Shall encourage voluntary cooperation by the people, municipalities, counties, industries, agriculture, and other pursuits, in restoring and preserving the quality and purity of the air and the waters of the state in accordance with rules and standards established by the commission.

* * *

(i) Shall make such determination of priority of air or water pollution control projects as may be necessary under terms of statutes enacted by the Congress of the United States.

(j) Shall seek enforcement of the air and water pollution laws of the state.

(k) Shall institute or cause to be instituted in a court of competent jurisdiction, proceedings to compel compliance with any rule or standard adopted or any order or permit, or condition thereof, issued pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.315 to 454.355, 454.405 to 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter.

(L) Shall encourage the formulation and execution of plans in conjunction with air and water pollution control agencies or with associations of counties, cities, industries and other persons who severally or jointly are or may be the source of air or water pollution, for the prevention and abatement of pollution.

* * *

468.060 Enforcement of rules by health agencies. On its own motion after public hearing, the commission may grant specific authorization to the Health Division or to any county, district or city board of health to enforce any rule of the commission relating to air or water pollution or solid wastes.

468.090 Complaint procedure. (1) In case any written substantiated complaint is filed with the department which it has cause to believe, or in case the department itself has cause to believe, that any person is violating any rule or standard adopted by the commission or any permit issued by the department by causing or permitting water pollution or air pollution or air contamination, the department shall cause an investigation thereof to be made. If it finds after such investigation that such a violation of any rule or standard of the commission or of any permit issued by the department exists, it shall by conference, conciliation and persuasion endeavor to eliminate the source or cause of the pollution or contamination which resulted in such violation.

(2) In case of failure to remedy the violation, the department shall commence enforcement proceedings pursuant to the procedures set forth in ORS chapter 183 for a contested case.

468.130 Schedule of civil penalties; factors to be considered in imposing civil penalties. (1) The commission shall adopt by rule a schedule or schedules establishing the amount of civil penalty that may be imposed for a particular violation. Except as provided in subsection (3) of ORS 468.140, no civil penalty shall exceed $500 per day. Where the classification involves air pollution, the commission shall consult with the regional air quality control authorities before adopting any classification or schedule.

(2) In imposing a penalty pursuant to the schedule or schedules authorized by this section, the commission and regional air quality control authorities shall consider the following factors:

(a) The past history of the person incurring a penalty in taking all feasible steps or procedures necessary or appropriate to correct any violation.

(b) Any prior violations of statutes, rules, orders and permits pertaining to water or air pollution or air contamination or solid waste disposal.

(c) The economic and financial conditions of the person incurring a penalty.

(3) The penalty imposed under this section may be remitted or mitigated upon such terms and conditions as the commission or regional authority considers proper and consistent with the public health and safety.

468.135 Procedures to collect civil penalties. (1) Subject to the advance notice provisions of ORS 468.125, any civil penalty imposed under ORS 468.140 shall become due and payable when the person incurring the penalty receives a notice in writing from the director of the department, or from the director of a regional air quality control authority, if the violation occurs within its territory. The notice referred to in this section shall be sent by registered or certified mail and shall include:

(a) A reference to the particular sections of the statute, rule, standard, order or permit involved;

(b) A short and plain statement of the matters asserted or charged;

(c) A statement of the amount of the penalty or penalties imposed; and

(d) A statement of the party's right to request a hearing.

(2) The person to whom the notice is addressed shall have 20 days from the date of mailing of the notice in which to make written application for a hearing before the commission or before the board of directors of a regional air quality control authority.

(3) All hearings shall be conducted pursuant to the applicable provisions of ORS chapter 183.

(4) Unless the amount of the penalty is paid within 10 days after the order becomes final, the order shall constitute a judgment and may be filed in accordance with the provisions of ORS 18.320 to 18.370. Execution may be issued upon the order in the same manner as execution upon a judgment of a court of record.

(5) All penalties recovered under ORS 468.140 shall be paid into the State Treasury and credited to the General Fund, or in the event the penalty is recovered by a regional air quality control authority, it shall be paid into the county treasury of the county in which the violation occurred.

468.140 Civil penalties for specified violations. (1) In addition to any other penalty provided by law, any person who violates any of the following shall incur a civil penalty for each day of violation in the amount prescribed by the schedule adopted under ORS 468.130:

(a) The terms or conditions of any permit required or authorized by law and issued by the department or a regional air quality control authority.

(b) Any provision of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.315 to 454.355, 454.405 to 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter.

(c) Any rule or standard or order of the commission adopted or issued pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.315 to 454.355, 454.405 to 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter.

(d) Any rule or standard or order of a regional authority adopted or issued under authority of subsection (1) of ORS 468.535.

(2) Each day of violation under subsection (1) of this section constitutes a separate offense.

(3) (a) In addition to any other penalty provided by law, any person who intentionally or negligently causes or permits the discharge of oil into the waters of the state shall incur a civil penalty not to exceed the amount of $20,000 for each violation.

(b) In addition to any other penalty provided by law, any person who violates the terms or conditions of a permit authorizing waste discharge into the waters of the state or violates any law, rule, order or standard in ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.315 to 454.355, 454.405 to 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter relating to water pollution shall incur a civil penalty not to exceed the amount of $10,000 for each day of violation.

(4) Paragraphs (c) and (d) of subsection (1) of this section do not apply to violations of motor vehicle emission standards.

468.745 Liability for damage to fish or wildlife or habitat; agency to which damages payable. (1) Where the injury, death, contamination or destruction of fish or other wildlife or injury or destruction of fish or wildlife habitat results from pollution or from any violation of the conditions set forth in any permit or of the orders, rules or standards of the commission, the person responsible for the injury, death, contamination or destruction shall be liable to the state in any amount reasonably necessary to restock or replace such fish or wildlife and to restore natural fish or wildlife production in the affected waters.

(2) In addition to the penalties provided for by law, the state may seek recovery of such damages in any court of competent jurisdiction in this state if the person responsible under subsection (1) of this section fails or refuses to pay for the restocking or replenishing of such fish or wildlife or restoring natural fish or wildlife production in the affected waters within a period of 60 days from the date of mailing by registered or certified mail of written demand therefor.

(3) Any action or suit for the recovery of damages described in subsection (1) of this section shall be brought in the name of the State of Oregon upon relation of the department or the Attorney General. Amounts recovered under this section shall be paid to the state agency having jurisdiction over the fish or wildlife or fish or wildlife production for which damages were recovered.

468.990 Penalties. (1) Wilful or negligent violation of ORS 468.720 or 468.740 is a misdemeanor and a person convicted thereof shall be punishable by a fine of not more than $25,000 or by imprisonment in the county jail for not more than one year, or by both. Each day of violation constitutes a separate offense.

(2) Violation of ORS 468.775 is a Class A misdemeanor. Each day of violation constitutes a separate offense.

(3) Violation of subsection (1) or (2) of ORS 468.760 is a Class A misdemeanor.

(4) Violation of ORS 454.415 or 454.425 is a Class A misdemeanor.
[1973 c.835 §28]

468.992 Penalties for water pollution offenses. (1) Wilful or negligent violation of any rule, standard or order of the commission relating to water pollution is a misdemeanor and a person convicted thereof shall be punishable by a fine of not more than $25,000 or by imprisonment in the county jail for not more than one year, or by both. Each day of violation constitutes a separate offense.

(2) Refusal to produce books, papers or information subpenaed by the commission or the regional air quality control authority or any report required by law or by the department or a regional authority pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.315 to 454.355, 454.405 to 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter is a Class A misdemeanor.

(3) Violation of the terms of any permit issued pursuant to ORS 468.065 is a Class A misdemeanor. Each day of violation constitutes a separate offense.

§ 691.1 Definitions

The following words or phrases, unless the context clearly indicates otherwise, shall have the meanings ascribed to them in this section.

* * *

"Industrial waste" shall be construed to mean any liquid, gaseous, radioactive, solid or other substance, not sewage, resulting from any manufacturing or industry, or from any establishment, as herein defined, and mine drainage, silt, coal mine solids, rock, debris, dirt and clay from coal mines, coal collieries, breakers or other coal processing operations. "Industrial waste" shall include all such substances whether or not generally characterized as waste.

* * *

"Pollution" shall be construed to mean contamination of any waters of the Commonwealth such as will create or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life, including but not limited to such contamination by alteration of the physical, chemical or biological properties of such waters, or change in temperature, taste, color or odor thereof, or the discharge of any liquid, gaseous, radioactive, solid or other substances into such waters. The board shall determine when a discharge constitutes pollution, as herein defined, and shall establish standards whereby and wherefrom it can be ascertained and determined whether any such discharge does or does not constitute pollution as herein defined.

"Sewage" shall be construed to include any substance that contains any of the waste products or excrementitious or other discharge from the bodies of human beings or animals.

"Waters of the Commonwealth" shall be construed to include any and all rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.

§ 691.4 Declaration of policy

(1) Clean, unpolluted streams are absolutely essential if Pennsylvania is to attract new manufacturing industries and to develop Pennsylvania's full share of the tourist industry;

(2) Clean, unpolluted water is absolutely essential if Pennsylvanians are to have adequate out of door recreational facilities in the decades ahead;

(3) It is the objective of the Clean Streams Law not only to prevent further pollution of the waters of the Commonwealth, but also to reclaim and restore to a clean, unpolluted condition every stream in Pennsylvania that is presently polluted;

(4) The prevention and elimination of water pollution is recognized as being directly related to the economic future of the Commonwealth; and

(5) The achievement of the objective herein set forth requires a comprehensive program of watershed management and control.

§ 691.601 Abatement of nuisances; restraining violations

(a) Any activity or condition declared by this act to be a nuisance, shall be abatable in the manner provided by law or equity for the abatement of public nuisances. In addition, suits to abate such nuisances or suits to restrain or prevent any violation of this act may be instituted in equity or at law in the name of the Commonwealth upon relation of the Attorney General, or upon relation of any district attorney of any county, or upon relation of the solicitor of any municipality affected, after notice has first been served upon the Attorney General of the intention of the district attorney or solicitor to so proceed. Such proceedings may be prosecuted in the Commonwealth Court, or in the court of common pleas of the county where the activity has taken place, the condition exists, or the public affected, and to that end jurisdiction is hereby conferred in law and equity upon such courts: Provided, however, That no action shall be brought by such district attorney or solicitor against any municipality discharging sewage under a permit of the board heretofore issued or hereafter issued under this act: And provided further, That, except in cases of emergency where, in the opinion of the court, the exigencies of the cases require immediate abatement of said nuisances, the court may, in its decree, fix a reasonable time during which the person or municipality responsible for the nuisances may make provision for the abatement of the same.

(b) In cases where the circumstances require it or the public health is endangered, a mandatory preliminary injunction or special injunction may be issued upon the terms prescribed by the court, notice of the application therefor having been given to the defendant in accordance with the rules of equity practice, and in any such case the Attorney General, the district attorney or the solicitor of any municipality shall not be required to give bond.

§ 691.602 Penalties

(a) Any person or municipality who violates any provision of this act or any rule or regulation or order of the board or any order of the department issued pursuant to this act is guilty of a summary offense and, upon conviction, shall be subject to a fine of not less than one hundred dollars ($100) nor more than one thousand dollars ($1,000) for each separate offense, and, in default of the payment of such fine, the person, or if such person be a partnership, then the members thereof, or if such person be a corporation or association, then the officers, members, agents, servants or employes thereof, shall be imprisoned in the county jail for a period of sixty days.

(b) Any person or municipality who, after a conviction in a summary proceeding within two years as above provided, violates any provision of this act or any rule or regulation or order of the board or any order of the department issued pursuant to this act is guilty of a misdemeanor and, upon conviction, shall be subject to a fine of not less than one hundred dollars ($100) nor more than five thousand dollars ($5,000) for each separate offense or to imprisonment in the county jail for a period of not more than one year, or both. In the case of a partnership the members thereof, and in the case of a corporation or an association the officers, members, agents, servants or employes thereof, may be subject to any such sentence of imprisonment.

(c) Each day of continued violation of any provision of this act or any rule or regulation or order of the board or any order of the department issued pursuant to this act shall constitute a separate offense under subsections (a) and (b) of this section.

§ 691.605 Civil penalties

In addition to proceeding under any other remedy available at law or in equity for a violation of a provision of this act or a rule or regulation of the board or an order of the department, the board, after hearing, may assess a civil penalty upon a person or municipality for such violation. Such a penalty may be assessed whether or not the violation was wilful. The civil penalty so assessed shall not exceed ten thousand dollars ($10,000), plus five hundred dollars ($500) for each day of continued violation. In determining the amount of the civil penalty the board shall consider the wilfullness of the violation, damage or injury to the waters of the Commonwealth or their uses, cost of restoration, and other relevant factors. It shall be payable to the Commonwealth of Pennsylvania and shall be collectible in any manner provided at law for the collection of debts. If any person liable to pay any such penalty neglects or refuses to pay the same after demand, the amount, together with interest and any costs that may accrue, shall be a lien in favor of the Commonwealth upon the property, both real and personal, of such person but only after same has been entered and docketed of record by the prothonotary of the county where such is situated. The board may, at any time, transmit to the prothonotaries of the respective counties certified copies of all such liens, and it shall be the duty of each prothonotary to enter and docket the same of record in his office, and to index the same as judgments are indexed, without requiring the payment of costs as a condition precedent to the entry thereof.

§ 691.610 Enforcement orders

The department may issue such orders as are necessary to aid in the enforcement of the provisions of this act. Such orders shall include, but shall not be limited to, orders modifying, suspending or revoking permits and orders requiring persons or municipalities to cease operations of an establishment which, in the course of its operation, has a discharge which is in violation of any provision of this act. Such an order may be issued if the department finds that a condition existing in or on the operation involved is causing or is creating a danger of pollution of the waters of the Commonwealth, or if it finds that the permittee, or any person or municipality is in violation of any relevant provision of this act, or of any relevant rule, regulation or order of the board or relevant order of the department: Provided, however, That an order affecting an operation not directly related to the condition or violation in question, may be issued only if the department finds that the other enforcement procedures, penalties and remedies available under this act would probably not be adequate to effect prompt or effective correction of the condition or violation. The department may, in its order, require compliance with such conditions as are necessary to prevent or abate pollution or effect the purposes of this act. An order issued under this section shall take effect upon notice, unless the order specifies otherwise. An appeal to the board of the department's order shall not act as a supersedeas: Provided, however, That, upon application and for cause shown, the board or the Commonwealth Court may issue such a supersedeas. The right of the department to issue an order under this section is in addition to any penalty which may be imposed pursuant to this act. The failure to comply with any such order is hereby declared to be a nuisance.

R.I. Gen. Laws Ann. (1970), as amended, (Supp. 1974)

46-12-1. Definition of terms.—As used in this chapter the following terms shall, where the context permits, be construed as follows:

The term "sewage" shall be held to mean and to include any human or animal excremental liquid or substance, any decomposed animal or vegetable matter, garbage, offal, filth, waste, chemicals, acid, dyestuff, starch, coloring matter, oil and tar, radio-active substances, and any compound, solution, mixture or product thereof, and every substance which may be injurious to public health or comfort, or which would injuriously affect the natural and healthy propagation, growth, or development of any fish or shellfish in the waters of this state, or of the nourishment of the same, or which would injuriously affect the flavor, taste, or value as food of any such fish or shellfish; or which would defile said waters or injure or defile any vessel, boat, wharf, pier, or any public or private property upon, in or under said waters, or any shore thereof.

The term "waters" shall include all tidewaters within the state and all inland waters of any river, stream, brook, pond or lake.

The term "person" shall include an individual, firm or co-partnership, and association, and a private or municipal corporation.

The term "pollution" shall be held to mean the entrance or discharge of sewage into any of the waters of the state in such quantity, either by itself or in connection with other sewage so discharged, as to alter the physical or chemical properties, or biology, of said waters, including change in temperature, taste, color, turbidity or odor, and to cause or be likely to cause damage to the public, or to any person having a right to use said waters for boating, fishing or other purposes, or owning property in, under or bordering upon the same.

The term "polluting" shall be held to mean the causing of pollution.

* * *

46-12-4. Prohibitions—Orders required.—(a) It shall be unlawful for any person to cause pollution of any waters of the state or to cause sewage to be placed in a location where it is likely to cause such pollution, or to place or cause to be placed in any stream, river, brook, pond or lake any solid waste materials, junk, or debris of any kind whatsoever, organic or non-organic.

(b) It shall be unlawful for any person to discharge sewage into the waters of the state without having obtained an order of the director approving the system or means he has adopted to prevent pollution of said waters, provided however that this subsection shall not apply to a discharge of sewage existing [on April 24, 1970] or to the addition to an existing discharge from a system or means approved by the director which does not exceed the capacity of such system or means as approved.

(c) It shall be unlawful for any person to construct, or install any system or means to prevent pollution, or to extend or add to any existing system or means to prevent pollution without having obtained an order of approval of the director of such system or means.

(d) It shall be unlawful for any person operating or maintaining a system or means to prevent pollution of the waters of the state to permit increases in volume or strength of sewage reaching such system or means beyond its capacity, as approved by the director.

(e) It shall be unlawful to construct or install any industrial, commercial, or other establishment, or make any modification or addition thereto or to undertake any development which may result in the discharge of any sewage into the waters of the state, unless such discharge is made to a system or means to prevent pollution approved by the director.

46-12-8. Order to adopt pollution prevention system.—If any person is polluting the waters of the state, and if after such investigation the director shall so find, he shall make his findings in writing to that effect and may enter an order directing such person to adopt or use or to operate properly, as the case may be, some practicable and reasonably available system or means to prevent such pollution, having due regard for the rights and interests of all persons concerned. Such order may specify the particular system or means to be adopted, used or operated; provided, however, that where there is more than one such practicable and reasonably available system or means, such order shall give to the person complained of the right to adopt or use such one (1) of said systems or means as he may choose.

46-12-14. Penalty for violation of orders.—Any person who shall be found guilty of violating any of the provisions of this chapter or an order of the director shall be punished by a fine of not more than five hundred dollars ($500) or by imprisonment for not more than thirty (30) days, or by both such fine or imprisonment; and every person shall be deemed guilty of a separate and distinct offense for each day during which such violation shall be repeated or continued. All complaints for violations of this chapter shall consist of five (5) copies, to be executed by the law enforcement officer involved as follows; one (1) copy to the department of health, one (1) copy to the water resources board, one (1) copy to the attorney-general, one (1) copy to the local police department, and one (1) copy to the defendant.

46-12-17. Prosecution of violations.—All prosecutions for the violation of any of the provisions of this chapter or any order of the director shall be by complaint and warrant and shall be made in the district courts of the state. The director, without being required to enter into any recognizance or to give surety or costs, may institute such proceedings in the name of the state. It shall be the duty of the chief counsel of the division of legal services of the department of health to carry out all such proceedings brought by said director.

46-12-19. Proceedings for enforcement.—The superior court shall have jurisdiction in equity to enforce the provisions of this chapter and any order made by the director, in conformity therewith. Proceedings under this section shall follow the course of equity and shall be instituted and prosecuted in the name of the director by the attorney general, but only upon the request of the director.

§ 63-195. Citation of chapter; definitions.—This chapter may be cited as the "Pollution Control Act" and, when used herein, unless the context otherwise requires:

(1) *"Person"* means any individual, public or private corporation, political subdivision, government agency, municipality, industry, copartnership, association, firm, trust, estate or any other legal entity whatsoever;

(2) *"Waters"* means lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial limits of the State and all other bodies of surface or underground water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially within or bordering the State or within its jurisdiction;

(3) *"Marine district"* means the waters of the Atlantic Ocean within three nautical miles from the coast line and all other tidal waters within the State;

(4) *"Sewage"* means the water-carried human or animal wastes from residences, buildings, industrial establishments or other places, together with such ground water infiltration and surface water as may be present and the admixture with sewage of industrial wastes or other wastes shall also be considered "sewage";

(5) *"Industrial waste"* means any liquid, gaseous, solid or other waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business or from the development of any natural resources;

(6) *"Other wastes"* means garbage, refuse, decayed wood, sawdust, shavings, bark, sand, clay, lime, cinders, ashes, offal, oil, gasoline, other petroleum products or by-products, tar, dye stuffs, acids, chemicals, dead animals, heated substances, and all other products, by-products or substances not sewage or industrial waste which may cause or tend to cause pollution of the waters of the State;

(7) *"Pollution"* means the presence in the environment of any substance, including but not limited to sewage, industrial waste, other waste, air contaminant, or any combination thereof in such quantity and of such characteristics and durations as may cause, or tend to cause, the environment of the State to be contaminated, unclean, noxious, odorous, impure or degraded, or which is, or tends to be, injurious to human health or welfare; or which damages property, plant, animal or marine life; or which interferes with enjoyment of life or use of property;

(8) *"Standard"* or *"standards"* means such measure of purity or quality for any waters in relation to their reasonable and necessary use as may after hearing be established;

§ 63-195.1. Declaration of policy.—It is declared to be the public policy of the State to maintain reasonable standards of purity of the air and water resources of the State, consistent with the public health, safety and welfare of its citizens, maximum employment, the industrial development of the State, the propagation and protection of terrestrial and marine flora and fauna, and the protection of physical property and other resources. It is further declared that to secure these purposes and the enforcement of the provisions of this chapter, the Pollution Control Authority shall have authority to abate, control and prevent pollution.

§ 63-195.6. Rules and regulations. — The Authority shall promulgate rules and regulations to implement this chapter and to govern the procedure of the Authority with respect to meetings, hearings, filing of reports, the issuance of permits and all other matters relating to procedure. The rules and regulations for preventing contamination of the air may not specify any particular method to be used to reduce undesirable levels, nor the type, design, or method of installation or type of construction of any manufacturing processes or other kinds of equipment.

46-25-23. Legislative findings and policy.—Whereas the pollution of the waters of this state constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish and aquatic life, and impairs domestic, agricultural, industrial, recreational and other legitimate beneficial uses of water, and whereas the problem of water pollution in this state is closely related to the problem of water pollution in adjoining states, it is hereby declared to be the public policy of this state to conserve the waters of the state and to protect, maintain and improve the quality thereof for water supplies, for the propagation of wildlife, fish and aquatic life, and for domestic, agricultural, industrial, recreational and other legitimate uses; to provide that no waste be discharged into any waters of the state without first receiving the necessary treatment or other corrective action to protect the legitimate and beneficial uses of such waters; to provide for the prevention, abatement and control of new and existing water pollution; and to co-operate with other agencies of the state, agencies of other states and the federal government in carrying out these objectives.

Source: SL 1973, ch 280, § 1.

46-25-24. Definition of terms.—Terms used in this chapter, unless the context otherwise requires mean:

(1) "Pollution," such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the state as exceeds that permitted by state effluent and/or water quality standards, including but not limited to change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life;

(2) "Wastes," sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive, or other substances which may pollute or tend to pollute any waters of the state;

* * *

(6) "Waters of the state," all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state;

(10) "Point source," any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged;

(11) "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste discharged into waters of the state; and

(12) "Publicly owned treatment works" means any facility for the treatment of pollutants owned by the state or any political subdivision thereof.

46-25-34.2. Violation of pretreatment standards for industrial user unlawful.—It shall be unlawful for an industrial user of publicly owned treatment works to violate toxic effluent standards and pretreatment standards.

46-25-34.3. Enforcement of pretreatment standards for industrial users.—The secretary shall have authority to enforce compliance of toxic effluent standards and pretreatment standards for pollutants introduced into publicly owned treatment works, pursuant to the enforcement procedures of this chapter, by industrial users of such treatment works.

46-25-40. Reduction of existing water quality by discharge of waste unlawful.—It shall be unlawful for any person to discharge any wastes into any waters of the state which reduce the quality of such waters below the water quality level existing on March 27, 1973.

46-25-41. Violation as public nuisance.—Any action in violation of § 46-25-39 or § 46-25-40 is hereby declared a public nuisance.

46-25-84. Emergency order by secretary to stop pollution—Effective immediately.—Notwithstanding any other provisions of this chapter, if the secretary finds that a person is committing or is about to commit an act in violation of this chapter or an order or rule issued under it which, if it occurs or continues, will cause substantial pollution, as herein defined, the harmful effects of which

46-25-88. Action in circuit court for immediate restraint of pollution.—In the alternative, upon receipt of evidence that a pollution source or combination of sources is presenting an imminent and substantial endangerment to the health of persons or to the welfare of persons where such endangerment to welfare is to the livelihood of such persons, the secretary may bring suit on behalf of the state in the circuit court in which the violation is taking place to immediately restrain any person causing or contributing to the alleged pollution to stop the discharge of pollutants causing or contributing to such pollution or to take such other action as may be necessary.

46-25-89. Action by board to enjoin violations—Temporary injunction and restraining order.—The board may bring an action without furnishing of bond, for an injunction against the continuation of any alleged violation which has been the basis for suspension or revocation of a permit by the secretary, or against any person who fails to comply with an emergency order issued by the secretary by virtue of § 46-25-84, or any final order of the secretary or board. The court to which the board applies for an injunction may issue a temporary injunction, if it finds that there is reasonable cause to believe that the allegations of the board are true, and it may issue a temporary restraining order pending action on the temporary injunction.

46-25-90. Initiation of action to recover penalties.—In addition to or instead of issuing an order, the secretary or board may initiate appropriate action for recovery of a penalty, pursuant to §§ 46-25-91 to 46-25-95, inclusive.

46-25-91. Criminal penalties for violation of chapter or terms of permit—Increased penalty for repeat violations.—Any person who violates this chapter or any permit condition or limitation implementing the chapter shall be punished by a fine of not more than twenty-five thousand dollars per day of violation, or by imprisonment for not more than one year in the county jail or both. If the conviction is for a violation committed after a first conviction of such person under this section, punishment shall be by a fine of not more than fifty thousand dollars per day of violation, or by imprisonment for not more than one year in the county jail or both.

46-25-92. Civil penalty for violation of chapter or terms of permit.—Any person who violates this chapter, or any permit condition or limitation implementing the chapter, or any person who violates any order issued pursuant to § 46-25-69, § 46-25-76 or § 46-25-78 shall be subject to a civil penalty not to exceed ten thousand dollars per day of violation.

46-25-93. Penalties for false representations or tampering with monitoring devices.—Any person who makes any false statement, representation, or certification in any other document filed or required to be maintained under this chapter, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this chapter shall upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.

Source: SL 1973, ch 280, § 14 (2).

46-25-94. Alternative remedies not barred by invoking penalties.—Any action pursuant to §§ 46-25-91 to 46-25-93, inclusive, does not bar enforcement of the chapter, or of rules or orders issued pursuant to it by injunctive or other appropriate remedy.

Source: SL 1973, ch 280, § 14 (4).

46-25-95. Remedies under chapter alternative to remedies under other law.—A purpose of this chapter is to provide additional and cumulative remedies to prevent, abate, and control the pollution of state waters. This chapter shall not be construed to abridge or alter rights or action of remedies in equity or under the common law or statutory law, criminal or civil, nor shall any provision of this chapter be construed as estopping the state or any municipality or person as owners of water rights or otherwise in the exercise of their rights in equity or under the common law or statutory law to suppress nuisances or to abate pollution.

70-325. Declaration of policy and purpose.—Recognizing that the waters of the state of Tennessee are the property of the state and are held in public trust for the use of the people of the state, it is declared to be the public policy of the state of Tennessee that the people of Tennessee as beneficiaries of this trust have a right to unpolluted waters. In the exercise of its public trust over the waters of the state, the government of the state of Tennessee has an obligation to take all prudent steps to secure, protect, and preserve this right.

It is further declared that the purpose of this law is to abate existing pollution of the waters of Tennessee, to reclaim polluted waters, to prevent the future pollution of the waters, and to plan for the future use of the waters so that the water resources of Tennessee might be used and enjoyed to the fullest extent consistent with the maintenance of unpolluted waters. [Acts 1971, ch. 164, § 2.]

70-326. Definitions.—The terms used in §§ 70-324—70-342 are defined as follows:

(1) The term "board" means the Tennessee water quality control board herein created.

* * *

(7) The term "industrial wastes" means any liquid, solid, or gaseous substance, or combination thereof, or form of energy including heat, resulting from any process of industry, manufacture, trade, or business or from the development of any natural resource.

(8) The term "member" means a member of the Tennessee water quality control board.

(9) The term "other wastes" means any and all other substances or forms of energy with the exception of sewage and industrial wastes which may result in the pollution of any waters of this state including, but not limited to, decayed wood, sand, garbage, silt, municipal refuse, sawdust, shavings, bark, lime, ashes, offal, oil, tar, sludge, or other petroleum by-products, radioactive material, chemicals, and heated substances.

(10) The term "person" means any and all persons, including individuals, firms, partnerships, associations, public or private institutions, municipalities or political subdivisions or officers thereof, departments, agencies, or instrumentalities, or public or private corporations or officers thereof, organized or existing under the laws of this or any other state or country.

(11) The term "pollution" means such alteration of the physical, chemical, biological, bacteriological, or radiological properties of the waters of this state including but not limited to changes in temperature, taste, color, turbidity, or odor of said waters,

(i) as will result or will likely result in harm, potential harm or detriment to the public health, safety, or welfare; or

(ii) as will result or will likely result in harm, potential harm, or detriment to the health of animals, birds, fish, or aquatic life; or

(iii) as will render or will likely render the waters substantially less useful for domestic, municipal, industrial, agricultural, recreational, or other reasonable uses; or

(iv) as will leave or will likely leave the waters in such condition as to violate any standards of water quality established by the board.

(12) The term "sewage" means water-carried waste or discharges from human beings or animals, from residences, public or private buildings, or industrial or agricultural establishments, or boats, together with such other wastes and ground, surface, storm, or other water as may be present.

(13) The term "sewerage system" means the conduits, sewers, and all devices and appurtenances by means of which sewage and other waste is collected, pumped, treated, or disposed of.

(14) The term "waters" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon the state of Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters. [Acts 1971, ch. 164, § 3.]

70-328. Duties and authority of the board.—The board shall hav and exercise the following powers, duties, and repsonsibilities:

(a) To establish and adopt standards of quality for all wate of the state. The general assembly recognizes that due to variou factors, no single standard of quality and purity is applicable to a waters of the state or to different segments of the same waters. Th board shall classify all waters of the state and adopt water qualit standards pursuant to such classifications. Such classifications shall b made in accordance with the declaration of policy and purpose in § 7 325. In preparing the classification of waters and the standards o quality mentioned above, the board shall give consideration to: the siz depth, surface area covered, volume, direction, and rate of flow, strea gradient, and temperature of the water; the character of the lan bordering, overlying, or underlying the waters of the state and it particular suitability for particular uses, with a view to conservin the value of said land, encouraging the most appropriate use of th same for economic, residential, agricultural, industrial, recreationa and conservation purposes; the past, present, and potential uses of th waters for transportation, domestic and industrial consumption, recrea tion, fishing and fish culture, fire prevention, the disposal of sewage industrial and other wastes, and other possible uses. The state wate quality plan provided for in subdivision (c) of this section shall contai standards of quality and purity for each of the various classes of wate in accordance with the best interests of the public. In preparing suc standards, the board shall give due consideration to all physical, chem cal, biological, bacteriological, or radiological properties that may b necessary for preserving the quality and purity of the waters of th state. The board may amend and revise such standards and classifica tions, including revisions to improve and upgrade the quality of wate

(b) To adopt, modify, repeal, promulgate after due notice, an enforce rules and regulations which the board deems necessary fo the proper administration of §§ 70-324—70-342, the prevention, control, and abatement of pollution, or the modification of classification and the upgrading of the standards of quality in accordance with subdivision (a) of this section.

(c) To adopt, modify, repeal, and promulgate after due notice, all necessary rules and regulations for the purpose of controlling the discharge of sewage, other wastes, and other substances from any boats.

* * *

70-336. Causing pollution or refusing to furnish information.—It shall be unlawful for any person to discharge any substance to the waters of the state or to place or cause any substance to be placed in any location where such substances, either by themselves or in combination with others, cause any of the damages as defined in § 70-326(11), unless such discharge shall be due to an act of God, an unavoidable accident, or unless such action has been properly authorized. Any such action is declared to be a public nuisance. In addition, it shall be unlawful for any person to act in a manner or degree which is violative of any provision of §§ 70-324—70-342 or of any rule, regulation, or standard of water quality promulgated by the board or of any permits or orders issued pursuant to the provisions of §§ 70-324—70-342; or to fail or refuse to file an application for a permit as required in § 70-330; or to refuse to furnish, or to falsify any records, information, plans, specifications, or other data required by the board or the commissioner under §§ 70-324—70-342. The plea of financial inability to prevent, abate, or control pollution shall not be a valid defense under the provisions of §§ 70-324—70-342. [Acts 1971, ch. 164, § 13; 1972 (Adj. S.), ch. 631, § 2.]

70-337. Penalties.—(a) Any person unlawfully polluting the waters of the state or violating or failing, neglecting, or refusing to comply with any of the provisions of §§ 70-324—70-342 shall be guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not less than fifty dollars ($50.00) nor more than five thousand dollars ($5,000). Each day upon which such violation occurs shall constitute a separate offense.

(b) Any person who willfully and knowingly falsifies any records, information, plans, specifications, or other data required by the board or the commissioner or who willfully and knowingly unlawfully pollutes the waters of the state or willfully fails, neglects, or refuses to comply with any of the provisions of §§ 70-324—70-342 shall be guilty of a felony and shall be punished by a fine of not more than ten thousand dollars ($10,000) or imprisonment not to exceed two (2) years or both.

(c) Provided however, that person for the purpose of any criminal prosecution shall not mean a municipality or political subdivision or officers thereof, departments, agencies, or instrumentalities it being the purpose of §§ 70-324—70-342 to enforce all regulations against a municipality by injunctive relief.

And further provided, that no process by warrant, presentment or indictment shall be issued except upon application of the board or commissioner or such application for process authorized by them.

(d) No warrant, presentment, or indictment shall be issued except upon application by the board or the commissioner, or upon such application authorized in writing by them. [Acts 1971, ch. 164, § 14; 1971, ch. 386, § 7; 1972 (Adj. S.), ch. 631, § 3.]

70-338. Damages to the state.—(a) The commissioner may assess the liability of any polluter or violator for damages to the state resulting from any person's pollution or violation, failure, or neglect in complying with any rules, regulations, or standards of water quality promulgated by the board or permits or orders issued pursuant to the provisions of §§ 70-324—70-342. If an appeal from such assessment is not made to the board by the polluter or violator within ten (10) days of notification of such assessment, he shall be deemed to have consented to such assessment and it shall become final. Damages may include any expenses incurred in investigating and enforcing §§ 70-324—70-342, in removing, correcting, and terminating any pollution, and also compensation for any loss or destruction of wildlife, fish, or aquatic life and any other actual damages caused by the pollution or violation. Whenever any assessment has become final because of a person's failure to appeal within the time provided, the commissioner may apply to the apropriate court for a judgment, and seek execution on such judgment. The court, in such proceedings, shall treat the failure to appeal such assessment as a confession of judgment in the amount of the assessment. [Acts 1971, ch. 164, § 15.]

70-339. Injunctions.—(a) When there is reason to believe that a person is causing or is about to cause or has caused pollution or is violating or is about to violate or has violated any of the provisions of §§ 70-324—70-342 or any permits or orders issued thereunder, the commissioner may institute proceedings in the appropriate court for injunctive relief to prevent continuance of such action or to correct the conditions resulting in or about to result in such pollution or both. The court shall grant the injunction without the necessity of showing a lack of adequate remedy at law upon a showing by the commissioner that such person is polluting or is about to pollute the water of this state or to violate one or more of the provisions of §§ 70-324—70-342. In such suits, the commissioner may obtain permanent or temporary injunctions, prohibitory or mandatory, and restraining orders.

(b) The commissioner may bring suit for injunctive enforcement of any order made by him when such order has become final as a result of any person's failure to appeal to the board, and such person has failed to comply with the order. In such suits all findings of fact contained in the order and complaint shall be deemed to be final, and not subject to review except as to receipt of notice of the order, but the defendant may offer evidence showing that he has in fact complied with the commissioner's order. The order made by the commissioner in such cases shall be prima facie reasonable and valid, and it shall be presumed that the commissioner has complied with all requirements of the law. The board may likewise bring suit for enforcement of any order made by it, which has become final either by the failure of any person to appeal the board's order or by an appellate court's decision against any person who fails to comply with such final order. In such suits the board's decision shall not be subject to challenge as to matters of law or fact, but the polluter or violator may proffer evidence showing that he has in fact complied with the board's order.

(c) Any suit for an injunction brought by the commissioner shall be filed in the chancery court of Davidson County or in the chancery court of the county in which all or a part of the pollution or violation has or is about to occur, in the name of the department, by the staff attorney at the direction of the commissioner or the board and under the supervision of the attorney-general. Such proceedings shall not be tried by jury. Appeals from judgments or decrees of the chancery court in proceedings brought under the provisions of §§ 70-324—70-342 shall lie to the Supreme Court despite the fact that controverted questions of fact may be involved. [Acts 1971, ch. 164, § 16; 1972 (Adj. S.), ch. 444, § 1.]

70-340. **Other remedies.**—(a) Any person may file with the commissioner a signed complaint against any person allegedly violating any provisions of §§ 70-324—70-342. Unless the commissioner determines that such complaint is duplicitous or frivolous, he shall immediately serve a copy of it upon the person or persons named therein, promptly investigate the allegations contained therein, and shall notify the alleged violator of what action, if any, he will take. In all cases he shall notify the complainant of his action or determination. If either the complainant or the alleged violator believes that the commissioner's action or determination is or will be inadequate or too severe, he may appeal to the board for a hearing which will be conducted pursuant to § 70-332. Such appeal must be made within ten (10) days after receipt of the notification sent by the commissioner. If the commissioner fails to take the action stated in his notification, the complainant may make an appeal to the board within twenty (20) days from the time at which the complainant knows or has reason to know of such failure. The department shall not be obligated to assist a complainant in gathering information or making investigations or to provide counsel for the purpose of drawing his complaint.

(b) The penalties, damages, and injunctions provided for in §§ 70-337—70-340 are intended to provide additional and cumulative remedies to prevent, abate, and control the pollution of the waters of the state. Nothing herein contained shall be construed to abridge or alter rights of action or remedies in equity or under common law or statutory law, criminal or civil, nor shall any provision of §§ 70-324—70-342 or any act done by virtue thereof, be construed as estopping the state or any municipality or person, as riparian owners or otherwise, in the exercise of their rights in equity or under the common law or statutory law to suppress nuisances, to abate pollution, or to recover damages resulting from such pollution. [Acts 1971, ch. 164, § 17; 1971, ch. 386, § 8.]

§ 21.003. Definitions

As used in this chapter:

(1) "Board" means the Texas Water Quality Board.

(2) "Executive director" means the executive director of the Texas Water Quality Board.

(3) "Water" or "water in the state" means groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

(4) "Waste" means sewage, industrial waste, municipal waste, recreational waste, agricultural waste, or other waste, as defined in this section.

(5) "Sewage" means waterborne human waste and waste from domestic activities, such as washing, bathing, and food preparation.

(6) "Municipal waste" means waterborne liquid, gaseous, or solid substances that result from any discharge from a publicly owned sewer system, treatment facility, or disposal system.

(7) "Recreational waste" means waterborne liquid, gaseous, or solid substances that emanate from any public or private park, beach, or recreational area.

(8) "Agricultural waste" means waterborne liquid, gaseous, or solid substances that arise from the agricultural industry and agricultural activities, including without limitation, agricultural animal feeding pens and lots, structures for housing and feeding agricultural animals, and processing facilities for agricultural products. The term "agricultural waste" does not include tail water or runoff water from irrigation, or rainwater runoff from cultivated or uncultivated rangeland, pastureland, and farmland.

(9) "Industrial waste" means waterborne liquid, gaseous, or solid substance that results from any process of industry, manufacturing, trade, or business.

(10) "Other waste" means garbage, refuse, decayed wood, sawdust, shavings, bark, sand, lime, cinders, ashes, offal, oil, tar, dyestuffs, acids, chemicals, salt water, or any other substance, other than sewage, industrial waste, municipal waste, recreational waste, or agricultural waste, that may cause impairment of the quality of water in the state. "Other waste" also includes tail water or runoff water from irrigation, or rainwater runoff from cultivated or uncultivated range land, pasture land, and farmland that may cause impairment of the quality of the water in the state.

(11) "Pollution" means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

* * *

(17) "To discharge" includes to deposit, conduct, drain, emit, throw, run, allow to seep, or otherwise release or dispose of, or to allow, permit, or suffer any of these acts or omissions.

§ 21.066. Enforcement Proceedings

The board, or the executive director when authorized by the board, may institute court proceedings to compel compliance with the provisions of this chapter or the rules, orders, permits, or other decisions of the board.

§ 21.251. Unauthorized Discharges Prohibited

(a) Except as authorized by a rule, regulation, permit, or other order issued by the board, or the executive director when authorized by the board, no person may:

(1) discharge sewage, municipal waste, recreational waste, agricultural waste, or industrial waste into or adjacent to any water in the state;

(2) discharge other waste into or adjacent to any water in the state which in itself, or in conjunction with any other discharge or activity, causes, continues to cause, or will cause pollution of any of the water in the state; or

(3) commit any other act or engage in any other activity, which in itself, or in conjunction with any other discharge or activity, causes, continues to cause, or will cause pollution of any of the water in the state, unless the activity is under the jurisdiction of the Parks and Wildlife Department, the General Land Office, or the Texas Railroad Commission, in which case this Subdivision (3) does not apply.

(b) In the enforcement of Subdivisions (2) and (3) of Subsection (a) of this section, consideration shall be given to the state of existing technology, economic feasibility, and the water quality needs of the waters that might be affected.

(c) No person may cause, suffer, allow, or permit the discharge of any waste or the performance of any activity in violation of this chapter or of any rule, regulation, permit, or other order of the board.

§ 21.253. Enforcement by Board

(a) Whenever it appears that a person has violated or is violating, or is threatening to violate, any provision of this chapter, or any rule, regulation, permit, or other order of the board, then the board, or the executive director when authorized by the board, may have a civil suit instituted in a district court for injunctive relief to restrain the person from continuing the violation or threat of violation, or for the assessment and recovery of a civil penalty of not less than $50 nor more than $1,000 for each act of violation and for each day of violation, or for both injunctive relief and civil penalty.

(b) Upon application for injunctive relief and a finding that a person is violating or threatening to violate any provision of this chapter or any rule, permit, or other order of the board, the district court shall grant the injunctive relief the facts may warrant.

(c) At the request of the board, or the executive director when authorized by the board, the attorney general shall institute and conduct a suit in the name of the State of Texas for injunctive relief or to recover the civil penalty or for both injunctive relief and penalty, as authorized in Subsection (a) of this section.

§ 21.254. Enforcement by Others

(a) Whenever it appears that a violation or threat of violation of any provision of Section 21.251 of this code or any rule, regulation, permit, or other order of the board has occurred or is occurring within the jurisdiction of a local government, exclusive of its extra-territorial jurisdiction, the local government, in the same manner as the board, may have a suit instituted in a district court through its own attorney for the injunctive relief or civil penalties or both, as authorized in Subsection (a) of Section 21.253 of this code, against the person who committed, or is committing or threatening to commit, the violation. This power may not be exercised by a local government unless its governing body adopts a resolution authorizing the exercise of the power. In a suit brought by a local government under this section, the board is a necessary and indispensable party.

(b) Whenever it appears that a violation or a threat of violation of any provision of Section 21.251 of this code or any rule, regulation, permit, or other order of the board has occurred or is occurring that affects aquatic life or wildlife, the Parks and Wildlife Department, in the same manner as the board, may have a suit instituted in a district court for injunctive relief or civil penalties or both, as authorized in Section 21.253(a) of this code, against the person who committed or is committing, or is threatening to commit, the violation. The suit shall be brought in the name of the State of Texas through the county attorney or the district attorney, as appropriate, of the county where the defendant resides or in the county where the violation or threat of violation occurs.

§ 21.552. Criminal Offense

(a) No person may discharge, or cause or permit the discharge of, any waste into or adjacent to any water in the state which causes or which will cause water pollution unless the waste is discharged in compliance with a permit or other order issued by the Texas Water Quality Board, the Texas Water Development Board, or the Texas Railroad Commission.

(b) No person to whom the Texas Water Quality Board has issued a permit or other order authorizing the discharge of any waste at a particular location may discharge, or cause or permit the discharge of, the waste in violation of the requirements of the permit or order.

§ 1251. Definitions

Whenever used or referred to in this chapter, unless a different meaning clearly appears from the context:

(1) "Board" means the Vermont water resources board;

(2) "Department" means the department of water resources;

(3) "Discharge" means the placing, depositing or emission of any wastes, directly or indirectly, into the waters of the state;

(4) "Person" means an individual, partnership, public or private corporation, municipality, institution or agency of the state, and includes any officer or governing or managing body of a partnership, association, firm or corporation;

(5) "Public interest" means that which shall be for the greatest benefit to the people of the state as determined by the standards set forth in subsection (c) of section 1253 of this title;

(6) "Waste" means effluent, sewage or any substance or material, liquid, gaseous, solid or radioactive, including heated liquids, whether or not harmful or deleterious to waters;

(7) "Waters" shall include all rivers, streams, creeks, brooks, reservoirs, ponds, lakes, springs and all bodies of surface waters, artificial or natural, which are contained within, flow through or border upon the state or any portion thereof.—Amended 1961, No. 100, § 2; 1964, No. 37 (Sp. Sess.), § 2; 1969, No. 252 (Adj. Sess.), § 1, eff. April 4, 1970.

(8) "Effluent limitation" means any restrictions or prohibitions established in accord with the provisions of this chapter or under federal law including, but not limited to, effluent limitations, standards of performance for new sources, and toxic effluent standards, on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged to waters of the state, including schedules of compliance;

(9) "Schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation or any other limitation, prohibition, or standard, including any water quality standard;

(10) "Secretary" means the secretary of the agency of environmental conservation or his duly authorized representative.

(11) "Oil" means oil of any kind, including but not limited to petroleum, fuel oils, oily sludge, waste oil, gasoline, kerosene, jet fuel, tar, asphalt, crude oils, lube oil, insoluble or partially soluble derivatives of mineral, animal or vegetable oils, or any product or mixture thereof.

(12) "Hazardous materials" means any material determined by the secretary to have an unusually destructive effect on water quality if discharged to the waters of the state.

§ 1259. Prohibitions

(a) On and after July 1, 1971, no person shall discharge any waste, substance or material into waters of the state, nor shall any person, after July 1, 1973, discharge any waste, substance or material into a well or discharge into a publicly owned treatment works any waste which interferes with, passes through without treatment, or is otherwise incompatible with such works or would have a substantial adverse effect on such works or on water quality, without first obtaining a permit for such discharge from the secretary. This subsection shall not prohibit the proper application of fertilizer to fields and crops, nor reduce or affect the authority or policy declared in joint house resolution 7 of the 1971 session of the general assembly.

(b) Upon notification by the secretary a holder of a permit under this chapter including section 20 of Act 252 of the 1969 Adjourned Session shall apply to the secretary for a national pollutant discharge elimination system permit. Any permit previously issued under this chapter including section 20 of Act 252 of the 1969 Adjourned Session shall be revoked

(1) if a holder does not apply within 30 days after notification by the secretary or

(2) upon the granting or denial of a National Pollutant Discharge Elimination system permit application.

(c) Any records, reports or information obtained under this permit program shall be available to the public for inspection and copying, provided that upon a showing satisfactory to the secretary that any records, reports or information or part thereof, other than effluent data, would, if made public, divulge methods or processes entitled to protection as trade secrets, the secretary shall treat and protect such records, reports or information as confidential, provided, however, that any such records, reports or information accorded confidential treatment will be disclosed to authorized representatives of the state and the United States when relevant to any proceedings under this chapter.—Amended 1973, No. 103, § 5, eff. April 24, 1973.

§ 1272. Regulation of activities causing discharge

If the secretary finds that any person's action, or an activity, results in the construction, installation, operation or maintenance of any facility or condition which reasonably can be expected to create or cause a discharge to waters in violation of this subchapter, it may issue an order establishing reasonable and proper methods and procedures for the control of such activity and the management of substances used therein which cause discharges in order to reduce or eliminate such discharges. Any person who receives an order pursuant to this section may appeal to the board as provided in section 1269 of this title.—Amended 1973, No. 103, § 10, eff. April 24, 1973.

§ 1274. Enforcement

Notwithstanding any other provision or procedure set forth in this subchapter, if the secretary finds that any person has discharged or is discharging any waste in violation of this subchapter or that any person has failed to comply with any provisions of any order or permit issued in accordance with this subchapter, he may bring suit in equity in the Washington county court or in any county where the discharge or noncompliance has occurred to enjoin such discharge and obtain compliance. Such suit shall be brought by the attorney general in the name of the state. The court may issue a temporary injunction or order in any such proceedings and may exercise all the plenary powers available to such court in addition to the power to:

(1) enjoin future discharges;

(2) order the design, construction, installation or operation of pollution abatement facilities or alternate waste disposal systems;

(3) order the removal of all wastes discharged and the restoration of water quality;

(4) fix and order compensation for any public property destroyed, damaged or injured;

(5) assess and award punitive damages; and

(6) levy civil penalties not to exceed $10,000.00 a day for each day of violation.

(7) Order reimbursement to any agency of federal, state or local government from any person whose discharge caused governmental expenditures for pollution abatement under section 1282 of Title 10.—Amended 1973, No. 103, § 11, eff. April 24, 1973; No. 112, § 4, eff. April 25, 1973.

§ 1275. Penalty

(a) Any person who violates any provision of this subchapter or who fails, neglects or refuses to obey or comply with any order or the terms of any permit issued in accordance with this subchapter, shall be fined not more than $25,000.00 or be imprisoned not more than six months, or both. Each violation shall be a separate and distinct offense and, in the case of a continuing violation, each day's continuance thereof shall be deemed a separate and distinct offense.

(b) Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained under this subchapter, or by any permit, rule, regulation or order issued under this subchapter, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this subchapter or by any permit, rule, regulation, or order issued under this subchapter, shall upon conviction, be punished by a fine of not more than $10,000.00 or by imprisonment for not more than six months, or by both.—Amended 1973, No. 103, § 12, eff. April 24, 1973.

73-14-1. Pollution of waters—Public policy of state.—Whereas the pollution of the waters of this state constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish and aquatic life, and impairs domestic, agricultural, industrial, recreational and other legitimate beneficial uses of water, and whereas such pollution is contrary to the best interests of the state and its policy for the conservation of the water resources of the state, it is hereby declared to be the public policy of this state to conserve the waters of the state and to protect, maintain and improve the quality thereof for public water supplies, for the propagation of wildlife, fish and aquatic life, and for domestic, agricultural, industrial, recreational and other legitimate beneficial uses; to provide that no waste be discharged into any waters of the state without first being given the degree of treatment necessary to protect the legitimate beneficial uses of such waters; to provide for the prevention, abatement and control of new or existing water pollution; to place first in priority those control measures directed toward elimination of pollution which creates hazards to the public health; to insure due consideration of financial problems imposed on water polluters through pursuit of these objectives; and to co-operate with other agencies of the state, agencies of other states and the federal government in carrying out these objectives.

73-14-2. Definitions.—For the purposes of this act, the following words and phrases shall have the meanings ascribed to them in this section:

(a) "Pollution" means such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the state, or such discharge of any liquid gaseous or solid substance into any waters of the state as will create a nuisance or render such waters harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.

(b) "Wastes" means sewage, industrial waste and all other liquid, gaseous or solid substances which pollute any waters of the state.

* * *

73-14-4. Powers and duties of state water pollution control board.—The board shall have and may exercise the following powers and duties, with the understanding that pollution which results in hazards to the public health will be given first priority:

(a) To develop programs for the prevention, control and abatement of new or existing pollution of the waters of the state.

* * *

(f) To adopt, modify or repeal and promulgate standards of quality of the waters of the state and classify such waters according to their reasonable uses in the interest of the public under such conditions as the board may prescribe for the prevention, control and abatement of pollution.

(g) To adopt, modify, repeal, promulgate and enforce rules and regulations implementing or effectuating the powers and duties of the board under this act.

* * *

73-14-6. Classification of waters—Standards of purity and quality—Public hearings—Publication of orders of board—Time for compliance with classification or standards.—(a) In order to effectuate a program for the prevention, control and abatement of pollution of the waters of the state, the board is authorized to group the waters of the state into classes according to their present most reasonable uses. Subject to the approval of the legislature the board is authorized to upgrade and reclassify from time to time the waters of the state to the extent that it is practical and in the public interest.

(b) It shall be unlawful for any person to carry on any of the following activities without first securing such permit from the committee, as is required by it, for the disposal of all wastes which are or may be discharged thereby into the waters of the state: (1) The construction, installation, modification or operation of any treatment works or part thereof or any extension or addition thereto; (2) the increase in volume or strength of any wastes in excess of the permissive discharges specified under any existing permit; (3) the construction, installation, or operation of any establishment or any extension or modification thereof or addition thereto, the operation of which would cause an increase in the discharge of wastes into the waters of the state or would otherwise alter the physical, chemical or biological properties of any waters of the state in any manner not already lawfully authorized; (4) the construction or use of any new outlet for the discharge of any wastes into the waters of the state.

The committee under such conditions as it may prescribe may require the submission of such plans, specifications and other information as it deems to be relevant in connection with the issuance of such permits.

(c) The adoption of standards of quality of the waters of the state and classification of such waters or any modification or change thereof shall be effectuated by an order of the board which shall be published in a newspaper of general circulation in the area affected. In classifying waters and setting standards of water quality or making any modification or change thereof, the board shall allow and announce a reasonable time for persons discharging wastes into the waters of the state to comply with such classification or standards.

Any discharge in accord with such classification or standards shall not be deemed to be pollution for the purpose of this act.

73-14-10. Violations—Misdemeanors—Injunctions—Duties of attorney general—Findings of committee to be prima facie evidence of facts found.—(a) Any person who shall violate any of the provisions of, or who fails to perform any duty imposed by this act or who after notice violates any order of the committee promulgated pursuant to this act shall be guilty of a misdemeanor and in addition thereto may be enjoined from continuing such violation. Each day upon which such violation occurs shall constitute a separate violation.

(b) It shall be the duty of the attorney general on the request of the committee to bring an action for an injunction against any person violating the provisions of this act, or violating any order of the committee. In any action for an injunction brought pursuant to this section, any finding of the committee after hearing or due notice giving an opportunity to be heard shall be prima facie evidence of the fact or facts found therein.

Va. Code Ann. (1972), as amended, (Cum. Supp. 1974)

§ 62.1-44.2. Short title; purpose. — The short title of this chapter is State Water Control Law. It is the policy of the Commonwealth of Virginia and the purpose of this law to: (1) protect existing high quality State waters and restore all other State waters to such condition of quality that any such waters will permit all reasonable public uses and will support the propagation and growth of all aquatic life, including game fish, which might reasonably be expected to inhabit them, (2) safeguard the clean waters of the State from pollution, (3) prevent any increase in pollution, and (4) reduce existing pollution, in order to provide for the health, safety, and welfare of the citizens of the Commonwealth. (Code 1950, § 62-10; Code 1950 (Repl. Vol. 1968), § 62.1-14; 1968, c. 659; 1970, c. 638.)

§ 62.1-44.3. Definitions. — Unless a different meaning is required by the context the following terms as used in this chapter shall have the meanings hereinafter respectively ascribed to them:

(1) "*Board*" means the State Water Control Board;

(2) "*Member*" means a member of the Board;

(3) "*Certificate*" means any certificate issued by the Board;

(4) "*State waters*" means all water, on the surface and under the ground, wholly or partially within or bordering the State or within its jurisdiction;

(5) "*Owner*" means the State or any of its political subdivisions, including, but not limited to, sanitation district commissions and authorities, and public or private institution, corporation, association, firm or company organized or existing under the laws of this or any other state or country, or any person or group of persons acting individually or as a group;

(6) "*Pollution*" means such alteration of the physical, chemical or biological properties of any State waters as will or is likely to create a nuisance or render such waters (a) harmful or detrimental or injurious to the public health, safety or welfare, or to the health of animals, fish or aquatic life; (b) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (c) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses, provided that (i) an alteration of the physical, chemical, or biological property of State waters, or a discharge or deposit of sewage, industrial wastes or other wastes to State waters by any owner which by itself is not sufficient to cause pollution, but which, in combination with such alteration of or discharge or deposit to State waters by other owners is sufficient to cause pollution; (ii) the discharge of untreated sewage by any owner into State waters; and (iii) contributing to the contravention of standards of water quality duly established by the Board, are "pollution" for the terms and purposes of this chapter;

(7) "*Sewage*" means the water-carried human wastes from residences, buildings, industrial establishments or other places together with such industrial wastes, underground, surface, storm, or other water, as may be present;

(8) "*Industrial wastes*" means liquid or other wastes resulting from any process of industry, manufacture, trade or business, or from the development of any natural resources;

(9) "*Other wastes*" means decayed wood, sawdust, shavings, bark, lime, garbage, refuse, ashes, offal, tar, oil, chemicals, and all other substances, except industrial wastes and sewage, which may cause pollution in any State waters;

(10) "*Establishment*" means any industrial establishment, mill, factory, tannery, paper or pulp mill, mine, coal mine, colliery, breaker or coal-processing operations, quarry, oil refinery, boat, vessel, and each and every other industry or plant or works the operation of which produces industrial wastes or other wastes or which may otherwise alter the physical, chemical or biological properties of any State waters;

* * *

§ 62.1-44.4. Control by State as to water quality. — (1) No right to continue existing quality degradation in any State water shall exist nor shall such right be or be deemed to have been acquired by virtue of past or future discharge of sewage, industrial wastes or other wastes or other action by any owner. The right and control of the State in and over all State waters is hereby expressly reserved and reaffirmed. (2) Waters whose existing quality is better than the established standards as of the date on which such standards become effective will be maintained at high quality; provided that the Board has the power to authorize any project or development, which would constitute a new or an increased discharge of effluent to high quality water, when it has been affirmatively demonstrated that a change is justifiable to provide necessary economic or social development; and provided, further, that the necessary degree of waste treatment to maintain high water quality will be required where physically and economically feasible. Present and anticipated use of such waters will be preserved and protected.

§ 62.1-44.5. Public policy regarding waste discharges or other quality alterations of State waters. — It is hereby declared to be against public policy for any owner who does not have a certificate issued by the Board to (1) discharge into State waters inadequately treated sewage, industrial wastes, other wastes, or any noxious or deleterious substances, or (2) otherwise alter the physical, chemical or biological properties of such State waters and make them detrimental to the public health, or to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, or for recreation, or for other uses.

§ 62.1-44.16. Industrial wastes. — (1) Any owner who erects, constructs, opens, reopens, expands or employs new processes in or operates any establishment from which there is a potential or actual discharge of industrial wastes or other wastes to State waters shall first provide facilities approved by the Board for the treatment or control of such industrial wastes or other wastes.

Application for such discharge shall be made to the Board and shall be accompanied by pertinent plans, specifications, maps, and such other relevant information as may be required, in scope and details satisfactory to the Board.

(a) Public notice of every such application shall be given by notice published once a week for two successive weeks in a newspaper of general circulation in the county or city where the certificate is applied for or by such other means as the Board may prescribe.

(b) The Board shall review the application and the information that accompanies it as soon as practicable and making a ruling within a period of four months from the date the application is filed with the Board approving or disapproving the application and stating the grounds for conditional approval or disapproval. If the application is approved, the Board shall grant a certificate for the discharge of the industrial wastes or other wastes into State waters or for the other alteration of the physical, chemical or biological properties of State waters, as the case may be. If the application is disapproved, the Board shall notify the owner as to what measures, if any, the owner may take to secure approval.

(2) (a) Any owner operating under a valid certificate issued by the Board who fails to meet water quality standards established by the Board solely as a result of a change in water quality standards or in the law shall provide the necessary facilities approved by the Board within a reasonable time to meet such new requirements; provided, however, that such facilities shall be reasonable and practicable of attainment giving consideration to the public

interest and the equities of the case. The Board may amend such certificate, or revoke it and issue a new one to reflect such facilities after proper hearing, with at least thirty days' notice to the owner of the time, place and purpose thereof. If such revocation or amendment of a certificate is mutually agreeable to the Board and the owner involved, the hearing and notice may be dispensed with.

(b) The Board shall revoke the certificate in case of a failure to comply with all such requirements and may issue a special order under § 62.1-44.15 (8). (1970, c. 638.)

§ 62.1-44.17. Other wastes. — (1) Any owner who handles, stores, distributes or produces other wastes as defined in § 62.1-44.3 (9), any owner who causes or permits same to be handled, stored, distributed or produced or any owner upon or in whose establishment other wastes are handled, stored, distributed or produced shall upon request of the Board install facilities approved by the Board or adopt such measures approved by the Board as are necessary to prevent the escape, flow or discharge into any State waters when the escape, flow or discharge of such other wastes into any State waters would cause pollution of such State waters.

(2) Any owner under this section requested by the Board to provide facilities or adopt such measures shall make application therefor to the Board. Such application shall be accompanied by a copy of pertinent plans, specifications, maps, and such other relevant information as may be required, in scope and details satisfactory to the Board.

(3) The Board shall review the application and the information that accompanies it as soon as practicable and make a ruling within a period of four months from the date the application is filed with the Board approving or disapproving the application and stating the grounds for conditional approval or disapproval. If the application is approved, the Board shall grant a certificate for the handling, storing, distribution or production of such other wastes. If the application is disapproved, the Board shall notify the owner as to what measures the owner may take to secure approval.

§ 62.1-44.31. Violation of special order or certificate or failure to cooperate with Board. — It shall be unlawful for any owner to fail to comply with any special order adopted by the Board, which has become final under the provisions of this chapter, or to discharge sewage, industrial waste or other waste in violation of any condition contained in a certificate issued by the Board or in excess of the waste covered by such certificate, or to fail or refuse to furnish information, plans, specifications or other data reasonably necessary and pertinent required by the Board under this chapter.

§ 62.1-44.32. Penalties. — (a) Any owner who violates any provision of this chapter, or who fails, neglects or refuses to comply with any special final order of the Board, or final order of a court, lawfully issued as herein provided, shall be subject to a civil penalty not to exceed ten thousand dollars for each violation within the discretion of the court. Each day of violation shall constitute a separate offense.

(b) Any owner who willfully or negligently violates any provision of this chapter, or who fails, neglects or refuses to comply with any special final order of the Board, or final order of a court, lawfully issued as herein provided, or who knowingly makes any false statement in any form required to be submitted under this chapter or knowingly renders inaccurate any monitoring device or method required to be maintained under this chapter, shall be fined not less than one hundred dollars nor more than twenty-five thousand dollars for each violation within the discretion of the court. Each day of violation shall constitute a separate offense.

90.48.010 Policy enunciated. It is declared to be the public policy of the state of Washington to maintain the highest possible standards to insure the purity of all waters of the state consistent with public health and public enjoyment thereof, the propagation and protection of wild life, birds, game, fish and other aquatic life, and the industrial development of the state, and to that end require the use of all known available and reasonable methods by industries and others to prevent and control the pollution of the waters of the state of Washington. Consistent with this policy, the state of Washington will exercise its powers, as fully and as effectively as possible, to retain and secure high quality for all waters of the state. The state of Washington in recognition of the federal government's interest in the quality of the navigable waters of the United States, of which certain portions thereof are within the jurisdictional limits of this state, proclaims a public policy of working cooperatively with the federal government in a joint effort to extinguish the sources of water quality degradation, while at the same time preserving and vigorously exercising state powers to insure that present and future standards of water quality within the state shall be determined by the citizenry, through and by the efforts of state government, of the state of Washington.

90.48.020 Definitions. Whenever the word "person" is used in this chapter, it shall be construed to include any political subdivision, government agency, municipality, industry, public or private corporation, copartnership, association, firm, individual or any other entity whatsoever. Wherever the words "waters of the state" shall be used in this chapter, they shall be construed to include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington. Whenever the word "pollution" is used in this chapter, it shall be construed to mean such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life. Wherever the word "commission" is used in this chapter it shall mean the water pollution control commission as created in RCW 90.48.021. Whenever the word "director" is used in this chapter it shall mean the director as provided for in RCW 90.48.023.

90.48.037 Authority of commission to bring legal actions to enforce chapter. The commission, with the assistance of the attorney general, is authorized to bring any appropriate action at law or in equity, including action for injunctive relief, in the name of the people of the state of Washington as may be necessary to carry out the provisions of this chapter.

90.48.080 Discharge of polluting matter in waters prohibited. It shall be unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the commission, as provided for in this chapter.

90.48.140 Penalty. Any person found guilty of wilfully violating any of the provisions of this chapter, or any final written orders or directive of the department or a court in pursuance thereof shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars and costs of prosecution, or by imprisonment in the county jail for not more than one year, or by both such fine and imprisonment in the discretion of the court. Each day upon which a wilful violation of the provisions of this chapter occurs may be deemed a separate and additional violation.

90.48.142 Violations——Liability in damages for injury or death of fish, animals, vegetation——Action to recover. Any person who violates any of the provisions of this chapter, or fails to perform any duty imposed by this chapter, or violates an order or other determination of the commission or the director made pursuant to the provisions of this chapter, including the conditions of a waste discharge permit issued pursuant to RCW 90.48.160, and in the course thereof causes the death of, or injury to, fish, animals, vegetation or other resources of the state, or otherwise causes a reduction in the quality of the state's waters below the standards set by the commission, thereby damaging the same, shall be liable to pay the state damages in an amount equal to the sum of money necessary to restock such waters, replenish such resources, and otherwise restore the stream, lake or other water source to its condition prior to the injury, as such condition is determined by the commission. Such damages shall be recoverable in an action brought by the attorney general on behalf of the people of the state of Washington in the superior court of the county in which such damages occurred: *Provided*, That if damages occurred in more than one county the attorney general may bring action in any of the counties where the damages occurred. Any money so recovered by the attorney general shall be transferred to either the state game fund or the department of fisheries to use for food fish or shellfish management purposes and propagation, or to any other agency of the state having jurisdiction over the resource damaged and for which said moneys were recovered, as appropriate: *Provided*, That the agency receiving such money shall utilize not less than one-half of said money on activities or projects within the county where the action was brought by the attorney general. No action shall be authorized under this section against any person operating in compliance with the conditions of a waste discharge permit issued pursuant to RCW 90.48.160.

90.48.144 Violations——Civil penalty——Procedure——Appeals. Every person who:

(1) Violates the terms or conditions of a waste discharge permit issued pursuant to RCW 90.48.180 or *this amendatory act, or

(2) Conducts a commercial or industrial operation or other point source discharge operation without a waste discharge permit as required by RCW 90.48.160 or *this amendatory act, or

(3) Violates the provisions of RCW 90.48.080, shall incur, in addition to any other penalty as provided by law, a penalty in an amount of up to five thousand dollars a day for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be and be deemed to be a separate and distinct violation. Every act of commission or omission which procures, aids or abets in the violation shall be considered a violation under the provisions of this section and subject to the penalty herein provided for. The penalty herein provided for shall be imposed by a notice in writing, either by certified mail with return receipt requested or by personal service, to the person incurring the same from the director of the department or his authorized delegate describing such violation with reasonable particularity. The director or his authorized delegate may, upon written application therefor received within fifteen days after notice imposing any penalty is received by the person incurring the penalty, and when deemed in the best interest to carry out the purposes of this chapter, remit or mitigate any penalty provided for in this section upon such terms as he in his discretion shall deem proper, and shall have authority to ascertain the facts upon all such applications in such manner and under such regulations as he may deem proper. Any person incurring any penalty hereunder may appeal the same to the hearings board as provided

for in chapter 43.21B RCW. Such appeals shall be filed within thirty days of receipt of notice imposing any penalty unless an application for remission or mitigation is made to the department. When an application for remission or mitigation is made, such appeals shall be filed within thirty days of receipt of notice from the director or his authorized delegate setting forth the disposition of the application. Any penalty imposed hereunder shall become due and payable thirty days after receipt of a notice imposing the same unless application for remission or mitigation is made or an appeal is filed. When an application for remission or mitigation is made, any penalty incurred hereunder shall become due and payable thirty days after receipt of notice setting forth the disposition of the application unless an appeal is filed from such disposition. Whenever an appeal of any penalty incurred hereunder is filed, the penalty shall become due and payable only upon completion of all review proceedings and the issuance of a final order confirming the penalty in whole or in part. If the amount of any penalty is not paid to the department within thirty days after it becomes due and payable, the attorney general, upon the request of the director, shall bring an action in the name of the state of Washington in the superior court of Thurston county or of any county in which such violator may do business, to recover such penalty. In all such actions the procedure and rules of evidence shall be the same as an ordinary civil action except as otherwise in this chapter provided. All penalties recovered under this section shall be paid into the state treasury and credited to the general fund.

§ 20-5A-1. Declaration of policy.

It is declared to be the public policy of the State of West Virginia to maintain reasonable standards of purity and quality of the water of the State consistent with (1) public health and public enjoyment thereof; (2) the propagation and protection of animal, bird, fish, aquatic and plant life; and (3) the attraction, development, maintenance and expansion of agriculture, mining, manufacturing and other business and industry.

§ 20-5A-2. Definitions.

Unless the context in which used clearly requires a different meaning, as used in this article:

(a) "Director" shall mean the director of the department of natural resources;

(b) "Board" shall mean the state water resources board;

(c) "Chief" shall mean the chief of the division of water resources of the department of natural resources;

(d) "Person," "persons" or "applicant" shall mean any public or private corporation, institution, association, firm or company organized or existing under the laws of this or any other state or country; State of West Virginia; governmental agency; political subdivision; county court; municipal corporation; industry; sanitary district; public service district; drainage district; soil conservation district; watershed improvement district; partnership; trust; estate; person or individual; group of persons or individuals acting individually or as a group; or any other legal entity whatever;

(e) "Water resources," "water" or "waters" shall mean any and all water on or beneath the surface of the ground, whether percolating, standing, diffused or flowing, wholly or partially within this State, or bordering this State and within its jurisdiction, and shall include, without limiting the generality of the foregoing, natural or artificial lakes, rivers, streams, creeks, branches, brooks, ponds (except farm ponds, industrial settling basins and ponds and water treatment facilities), impounding reservoirs, springs, wells and watercourses;

(f) "Pollution" shall mean (1) the discharge, release, escape, deposit or disposition, directly or indirectly, of treated or untreated sewage, industrial wastes, or other wastes, of whatever kind or character, in or near any waters of the State, in such condition, manner or quantity, as does, will, or is likely to (A) contaminate or substantially contribute to the contamination of any of such waters, or (B) alter or substantially contribute to the alteration of the physical, chemical or biological properties of any of such waters, if such contamination or alteration, or the resulting contamination or alteration where a person only contributes thereto, is to such an extent as to make any of such waters (i) directly or indirectly harmful, detrimental or injurious to the public health, safety and welfare, or (ii) directly or indirectly detrimental to existing animal, bird, fish, aquatic or plant life, or (iii) unsuitable for present or future domestic, commercial, industrial, agricultural, recreational, scenic or other legitimate uses; and shall also mean (2) the discharge, release, escape, deposit, or disposition, directly or indirectly of treated or untreated sewage, industrial wastes or other wastes, of whatever kind or character, in or near any waters of the State in such condition, manner or quantity, as does, will, or is likely to reduce the quality of the waters of the State below the standards established therefor in the rules and regulations of the board;

(g) "Sewage" shall mean water-carried human or animal wastes from residences, buildings, industrial establishments or other places, together with such ground water infiltration and surface waters as may be present;

(h) "Industrial wastes" shall mean any liquid, gaseous, solid or other waste substance, or a combination thereof, resulting from or incidental to any process of industry, manufacturing, trade or business, or from or incidental to the development, processing or recovery of any natural resources; and the admixture with such industrial wastes of sewage or other wastes, as hereinafter defined, shall also be considered "industrial wastes" within the meaning of this article;

(i) "Other wastes" shall mean garbage, refuse, decayed wood, sawdust, shavings, bark and other wood debris and residues, sand, lime, cinders, ashes, offal, night soil, silt, oil, tar, dyestuffs, acids, chemicals, and all other materials and substances not sewage or industrial wastes which may cause or might reasonably be expected to cause or to contribute to the pollution of any of the waters of the State;

(j) "Establishment" shall mean an industrial establishment, mill, factory, tannery, paper or pulp mill, mine, colliery, breaker or mineral processing operation, quarry, refinery, well, and each and every industry or plant or works or activity in the operation or process of which industrial wastes, or other wastes are produced;

* * *

§ 20-5A-3. General powers and duties of chief of division and board with respect to pollution.

* * *

(b) In addition to all other powers and duties of the water resources board, as prescribed in this article or elsewhere by law, the board shall have and may exercise the following powers and authority and shall perform the following duties:

(1) To cooperate with any interstate agencies for the purpose of formulating, for submission to the legislature, interstate compacts and agreements relating to the control and reduction of water pollution; and

(2) To adopt, modify, repeal and enforce rules and regulations, in accordance with the provisions of chapter twenty-nine-A [§ 29A-1-1 et seq.] of this Code, (A) implementing and making effective the declaration

of policy contained in section one [§ 20-5A-1] of this article and the powers, duties and responsibilities vested in the board and the chief by the provisions of this article and otherwise by law; (B) preventing, controlling and abating pollution; and (C) establishing standards of quality for the waters of the State under such conditions as the board may prescribe for the prevention, control and abatement of pollution.

§ 20-5A-5. Prohibitions; permits required.

(a) It shall be unlawful for any person, unless he holds a permit therefor from the department, which is in full force and effect, to:

(1) Allow sewage, industrial wastes, or other wastes, or the effluent therefrom, produced by or emanating from any establishment to flow into the waters of this State;

(2) Make, cause or permit to be made any outlet, or substantially enlarge or add to the load of any existing outlet, for the discharge of sewage, industrial wastes, or other wastes, or the effluent therefrom, into the waters of this State;

(3) Acquire, construct, install, modify or operate a disposal system or part thereof for the direct or indirect discharge or deposit of treated or untreated sewage, industrial wastes, or other wastes, or the effluent therefrom, into the waters of this State, or any extension to or addition to such disposal system;

(4) Increase in volume or concentration of any sewage, industrial wastes or other wastes in excess of the discharges or disposition specified or permitted under any existing permit;

(5) Extend, modify or add to any establishment, the operation of which would cause an increase in the volume or concentration of any sewage, industrial wastes or other wastes discharging or flowing into the waters of the State;

(6) Open, reopen, operate or abandon any mine, quarry or preparation plant, or dispose of any refuse or industrial wastes or other wastes from any such mine or quarry or preparation plant: Provided, that the department's permit shall only be required wherever the aforementioned activities cause, may cause or might reasonably be expected to cause a discharge into or pollution of waters of the State; or

(7) Operate any disposal well for the injection or reinjection underground of any industrial wastes, including, but not limited to, liquids or gases, or convert any well into such a disposal well or plug or abandon any such disposal well.

(b) Where a person has a number of outlets emerging into the waters of this State in close proximity to one another, such outlets may be treated as a unit for the purposes of this section, and only one permit issued for all such outlets. (1964, c. 20; 1967, c. 143; 1969, c. 96.)

§ 20-5A-17. Injunctive relief.

Upon application by the chief, the circuit courts of this State or the judges thereof in vacation may by injunction compel compliance with and enjoin violations of the provisions of this article, the rules and regulations of the board, the terms and conditions of any permit granted under the provisions of this article, or any order of the chief or board, and the venue of any such action shall be the county in which the violation or noncompliance exists or is taking place or in any county in which the waters thereof are polluted as the result of such violation or noncompliance. The court or the judge thereof in vacation may issue a preliminary injunction in any case pending a decision on the merits of any application filed. Any other section of this Code to the contrary notwithstanding, the State shall not be required to furnish bond as a prerequisite to obtaining injunctive relief under this article.

An application for an injunction under the provisions of this section may be filed and injunctive relief granted notwithstanding that all of the administrative remedies provided for in this article have not been pursued or invoked against the person or persons against whom such relief is sought and notwithstanding that the person or persons against whom such relief is sought have not been prosecuted or convicted under the provisions of this article.

The judgment of the circuit court upon any application filed under the provisions of this article shall be final unless reversed, vacated or modified on appeal to the supreme court of appeals. Any such appeal shall be sought in the manner provided by law for appeals from circuit courts in other civil cases, except that the petition seeking such review must be filed with said supreme court of appeals within ninety days from the date of entry of the judgment of the circuit court.

Legal counsel and services for the chief or the board in all injunction proceedings in the circuit courts and in the supreme court of appeals of this State shall be provided by the attorney general or his assistants and by the prosecuting attorneys of the several counties as well, all without additional compensation, or the chief or the board, with the written approval of the attorney general, may employ counsel to represent him or it in a particular proceeding. (1964, c. 20; 1967, c. 143; 1969, c. 96.)

§ 20-5A-18. Priority of actions.

All applications under section seventeen [§ 20-5A-17] of this article and all proceedings for judicial review under section sixteen [§ 20-5A-16] of this article shall take priority on the docket of the circuit court in which pending, and shall take precedence over all other civil cases. Where such applications and proceedings for judicial review are pending in the same court at the same time, such applications shall take priority on the docket and shall take precedence over proceedings for judicial review.

§ 20-5A-19. Violations; criminal penalties.

Any person who causes pollution or who fails or refuses to discharge any duty imposed upon him by this article or by any rule or regulation of the board, promulgated pursuant to the provisions and intent of this article, or by any order of the chief or board, or who fails or refuses to apply for and obtain a permit as required by the provisions of this article, or who fails or refuses to comply with any term or condition of such permit, shall be guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a fine of not less than one hundred dollars nor more than one thousand dollars, or by imprisonment for a period not exceeding six months, or by both such fine and imprisonment. Any person who wilfully violates any provision of this article, or any rule or regulation of the board, or any order of the chief or board, or any term or condition of a permit, shall be guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a fine of not less than one thousand nor more than ten thousand dollars or by imprisonment not exceeding six months or by both such fine and imprisonment. Each day upon which such failure continues shall constitute a separate offense.

Any person who fails or refuses to discharge any duty imposed upon him by this article, or by any rule or regulation of the board, or by an order of the chief or board, or who fails or refuses to apply for and obtain a permit as required by the provisions of this article, or by any rule or regulation of the board or who fails or refuses to comply with any term or condition of such permit, may be prosecuted and convicted under the provisions of this section notwithstanding that none of the administrative remedies provided for in this article have been pursued or invoked against said person and notwithstanding that an application for an injunction under the provisions of this article has not been filed against such person.

Where a person holding a permit is carrying out a program of pollution abatement or remedial action in compliance with the conditions and terms of such permit, he shall not be subject to criminal prosecution for pollution recognized and authorized by such permit. (1964, c. 20; 1967, c. 148; 1969, c. 96.)

§ 20-5A-19a. Civil liability; natural resources game-fish and aquatic life fund; use of funds.

If any loss of game-fish or aquatic life results from a person's or persons' failure or refusal to discharge any duty imposed upon him by this article, the West Virginia department of natural resources shall have a cause of action on behalf of the State of West Virginia to recover from such person or persons causing such loss a sum equal to the cost of replacing such game-fish or aquatic life. Any moneys so collected by the director shall be deposited in a special revenue fund entitled "natural resources game-fish and aquatic life fund" and shall be expended as hereinafter provided. The fund shall be expended to stock waters of this State with game-fish and aquatic life. Where feasible, the director shall use any sum collected in accordance with the provisions of this section to stock waters in the area in which the loss resulting in the collection of such sum occurred. Any balance of such sum shall remain in said fund and be expended to stock state-owned and operated fishing lakes and ponds, wherever located in this State, with game-fish and aquatic life. (1964, c. 20; 1965, c. 113.)

§ 20-5A-20. Exceptions as to criminal liabilities.

The criminal liabilities imposed by section nineteen [§ 20-5A-19] of this article shall not be construed to include any violation resulting from accident or caused by an act of God, war, strike, riot or other catastrophe as to which negligence or wilful misconduct on the part of such person was not the proximate cause.

§ 20-5A-22. Existing rights and remedies preserved; article for benefit of State only.

It is the purpose of this article to provide additional and cumulative remedies to abate the pollution of the waters of the State and nothing herein contained shall abridge or alter rights of action or remedies now or hereafter existing, nor shall any provisions in this article, or any act done by virtue of this article, be construed as estopping the State, municipalities, public health officers, or persons as riparian owners or otherwise, in the exercise of their rights to suppress nuisances or to abate any pollution now or hereafter existing, or to recover damages.

The provisions of this article inure solely to and are for the benefit of the people generally of the State of West Virginia, and this article is not intended to in any way create new, or enlarge existing rights of riparian owners or others. An order of the chief or of the board, the effect of which is to find that pollution exists, or that any person is causing pollution, or any other order, or any violation of any of the provisions of this article shall give rise to no presumptions of law or findings of fact inuring to or for the benefit of persons other than the State of West Virginia.

Wisc. Stat. Ann. (1974)

144.01 Definitions

The following terms as used in this chapter mean:

(1) "Waters of the state" includes those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, and all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface or ground water, natural or artificial, public or private, within the state or its jurisdiction.

(2) "Sewage," the water carried wastes created in and to be conducted away from residences, industrial establishments and public buildings as defined in s. 101.01(2), with such surface or ground water as may be present.

(3) "Waterworks," or "water system," all structures, conduits and appurtenances by means of which water is delivered to consumers except piping and fixtures inside buildings served, and service pipes from building to street main.

(4) "Water supply," the sources and their surroundings from which water is supplied for drinking or domestic purposes.

(5) "Sewerage system," all structures, conduits and pipe lines by which sewage is collected and disposed of, except plumbing inside and in connection with buildings served, and service pipes from building to street main.

(6) "System or plant" includes water and sewerage systems and sewage and refuse disposal plants.

(7) "Refuse," all matters produced from industrial or community life, subject to decomposition, not defined as sewage.

(8) "Owner," the state, county, town, town sanitary district, city, village, metropolitan sewerage district, corporation, firm, company, institution or individual owning or operating any water supply, sewerage or water system or sewage and refuse disposal plant.

(9) "Industrial wastes" include liquid or other wastes resulting from any process of industry, manufacture, trade or business or the development of any natural resource.

(10) "Other wastes" include all other substances, except industrial wastes and sewage, as the latter term is defined in s. 144.01, which pollute any of the surface waters of the state. The term also includes "unnecessary siltation" resulting from operations such as the washing of vegetables or raw food products, gravel washing, stripping of lands for development of subdivisions, highways, quarries and gravel pits, mine drainage, cleaning of vehicles or barges or gross neglect of land erosion.

(11) "Pollution" includes contaminating or rendering unclean or impure the waters of the state, or making the same injurious to public health, harmful for commercial or recreational use, or deleterious to fish, bird, animal or plant life.

144.025 Department of natural resources—water resources

(1) Statement of policy and purpose. The department of natural resources shall serve as the central unit of state government to protect, maintain and improve the quality and management of the waters of the state, ground and surface, public and private. Continued pollution of the waters of the state has aroused widespread public concern. It endangers public health and threatens the general welfare. A comprehensive action program directed at all present and potential sources of water pollution whether home, farm, recreational, municipal, industrial or commercial is needed to protect human life and health, fish and aquatic life, scenic and ecological values and domestic, municipal, recreational, industrial, agricultural and other uses of water. The purpose of this act is to grant necessary powers and to organize a comprehensive program under a single state agency for the enhancement of the quality management and protection of all waters of the state, ground and surface, public and private. To the end that these vital purposes may be accomplished, this act and all rules and orders promulgated pursuant thereto shall be liberally construed in favor of the policy objectives set forth in this act. In order to achieve the policy objectives of this act, it is the express policy of the state to mobilize governmental effort and resources at all levels, state, federal and local, allocating such effort and resources to accomplish the greatest result for the people of the state as a whole. Because of the importance of Lakes Superior and Michigan and Green Bay as vast water resource reservoirs, water quality standards for those rivers emptying into Lake Superior and Michigan and Green Bay shall be as high as is practicable.

(2) Powers and duties. (a) The department shall have general supervision and control over the waters of the state. It shall formulate no later than July 1, 1968, a long-range, comprehensive state water resources plan for each region, as fixed by the department under sub. (4), to guide the development, management and protection of water resources. Such plan shall thereafter be carried out by the department. Such plan shall be reviewed and projected by the department every 2 years and a report thereon submitted to the governor by September 1 of each odd-numbered year. The department also shall formulate plans and programs for the prevention and abatement of water pollution and for the maintenance and improvement of water quality.

(b) The department shall adopt rules setting standards of water quality to be applicable to the waters of the state, recognizing that different standards may be required for different waters or portions thereof. Such standards of quality shall be such as to protect the public interest, which include the protection of the public health and welfare and the present and prospective future use of such waters for public and private water supplies, propagation of fish and aquatic life and wildlife, domestic and recreational purposes and agricultural, commercial, industrial and other legitimate uses. In all cases where the potential uses of water are in conflict, water quality standards shall be interpreted to protect the general public interest.

(c) The department may issue general orders, and adopt rules applicable throughout the state for the construction, installation, use and operation of practicable and available systems, methods and means for preventing and abating pollution of the waters of the state. Such general orders and rules shall be issued only after an opportunity to be heard thereon has been afforded to interested parties.

(d) 1. The department may issue special orders directing particular owners to secure such operating results toward the control of pollution of the waters of the state as the department prescribes, within a specified time. Pending efforts to comply with any order, the department may permit continuance of operations on such conditions as it prescribes. If any owner cannot comply with an order within the time specified, he may, before the date set in the order, petition the department to modify the order. The department may modify the order, specifying in writing the reasons therefor. If any order is not complied with within the time period specified, the department shall immediately notify the attorney general of this fact. Within 30 days thereafter, the attorney general shall forthwith commence an action under s. 144.536.

2. The department may issue temporary emergency orders without prior hearing when the department determines that the protection of the public health necessitates such immediate action. Such emergency orders shall take effect at such time as the department determines. As soon as is practicable, the department shall hold a public hearing after which it may modify or rescind the temporary emergency order or issue a special order under subd. 1.

* * *

(r) If the department finds that a system or plant tends to create a nuisance or menace to health or comfort, it shall order the owner or the person in charge to secure such operating results as the department prescribes, within a specified time. If the order is not complied with, the department may order designated changes in operation, and if necessary, alterations or extension to the system or plant, or a new system or plant. If the department finds that the absence of a municipal system or plant tends to create a nuisance or menace to health or comfort, it may order the city, village, town or town sanitary district embracing the area where such conditions exist to prepare and file complete plans of a corrective system as provided by s. 144.04, and to construct such system within a specified time.

* * *

§ 35-502.2. Policy and purpose.—Whereas pollution of the air, water and land of this state will imperil public health and welfare, create public or private nuisances, be harmful to wildlife, fish and aquatic life, and impair domestic, agricultural, industrial, recreational and other beneficial uses; it is hereby declared to be the policy and purpose of this act [§§ 35-502.1 to 35-502.56] to enable the state to prevent, reduce and eliminate pollution; to preserve, and enhance the air, water and reclaim the land of Wyoming; to plan the development, use, reclamation, preservation and enhancement of the air, land and water resources of the state; to preserve and exercise the primary responsibilities and rights of the State of Wyoming; to retain for the state the control over its air, land and water and to secure cooperation between agencies of the state, agencies of other states, interstate agencies, and the federal government in carrying out these objectives.

§ 35-502.3. Definitions.—(a) For the purpose of this act [§§ 35-502.1 to 35-502.56], unless the context otherwise requires:

* * *

(c) Specific definitions applying to water quality:

(i) *"Pollution"* means contamination or other alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity or odor of the waters or any discharge of any acid or toxic material, chemical or chemical compound, whether it be liquid, gaseous, solid, radioactive or other substance, including wastes, into any waters of the state which creates a nuisance or renders any waters harmful, detrimental or injurious to public health, safety or welfare, to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses, or to livestock, wildlife or aquatic life, or which degrades the water for its intended use, or adversely affects the environment. This term does not mean water, gas or other material which is injected into a well to facilitate production of oil, or gas or water, derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the state, and if the state determines that such injection or disposal well will not result in the degradation of ground or surface or water resources. This term does not mean waters diffused across meadow lands or crop lands for irrigation purposes, or return flows, whether diffused or collected in drains, from such water diffused across meadow or crop lands;

(ii) *"Wastes"* means sewage, industrial waste and all other liquid, gaseous, solid, radioactive, or other substances which may pollute any waters of the state;

* * *

§ 35-502.6. Powers, duties, functions and regulatory authority.—(a All powers, duties, functions and regulatory authority vested in the air resource council, the water pollution advisory council, the air quality section and the sanitary engineering services branches of the division of health and medical services, and the open cut land reclamation section of the office of the commissioner of public lands are transferred to the department, as of the effective date of this act [§§ 35-502.1 to 35-502.56]. The performance of such acts or functions by the department of these respective divisions shall have the same effect as if done by the former department councils, divisions, sections or branches as referred to or designated by law, contract or other document. The reference or designation to the former department, councils divisions, sections or branches shall now apply to the department.

(b) All rules, regulations and orders of the former department, councils, divisions, sections or branches lawfully adopted prior to the effective date of this act are adopted as the rules, regulations and orders of the department and shall continue to be effective until revised, amended, repealed or nullified pursuant to law.

§ 35-502.18. **Prohibited acts.**—(a) No person, except when authorized by a permit issued pursuant to the provisions of this act [§§ 35-502.1 to 35-502.56], shall:

(i) Cause, threaten or allow the discharge of any pollution or wastes into the waters of the state;

(ii) Alter the physical, chemical, radiological, biological or bacteriological properties of any waters of the state;

(iii) Construct, install, modify or operate any sewerage system, treatment works, disposal system or other facility, capable of causing or contributing to pollution;

(iv) Increase the quantity or strength of any discharge;

(v) Construct, install, modify or operate any public water supply. (Laws 1973, ch. 250, § 1.)

Editor's note. — There is no subsection (b) in this section as it appears in the printed acts.

§ 35-502.19. **Administrator's authority to recommend rules, regulations, etc.**—(a) The administrator, after consultation with the advisory board, shall recommend to the director rules, regulations, standards and permit systems to promote the purposes of this act [§§ 35-502.1 to 35-502.56]. Such rules, regulations, standards and permit systems shall prescribe:

(i) Water quality standards specifying the maximum short-term and long-term concentrations of pollution, the minimum permissible concentrations of dissolved oxygen and other matter, and the permissible temperatures of the waters of the state;

(ii) Effluent standards and limitations specifying the maximum amounts or concentrations of pollution and wastes which may be discharged into the waters of the state;

(iii) Standards for the issuance of permits for construction, installation, modification or operation of any sewerage system, treatment works, disposal system or other facility, capable of causing or contributing to pollution;

(iv) Standards for the definition of technical competency and the certification of operating personnel for public water supply and sewerage systems, treatment works and disposal systems and for determining that the operation shall be under the supervision of certified personnel;

(v) Standards for the issuance of permits as authorized pursuant to section 402(b) of the Federal Water Pollution Control Act as amended in 1972, and as it may be hereafter amended;

(vi) In recommending any standards, rules, regulations, or permits, the administrator and advisory board shall consider all the facts and circumstances bearing upon the reasonableness of the pollution involved including:

(A) The character and degree of injury to or interference with the health and well being of the people, animals, wildlife, aquatic life and plant life affected;

(B) The social and economic value of the source of pollution;

(C) The priority of location in the area involved;

(D) The technical practicability and economic reasonableness of reducing or eliminating the source of pollution; and

(E) The effect upon the environment;

(vii) Such reasonable time as may be necessary for owners and operators of pollution sources to comply with rules, regulations, standards or permits

§ 35-502.49. Violations of act; penalties.—(a) Any person who violates any provision of this act [§§ 35-502.1 to 35-502.56], or any rule, regulation, standard or permit adopted hereunder or who violates any determination or order of the council pursuant to this act or any rule, regulation, standard, permit, license or variance is liable to a penalty of not to exceed $10,000 for each day during which violation continues, which may be recovered in a civil action, and such person may be enjoined from continuing the violation as hereinafter provided. Damages are to be assessed by the court.

(b) Any person who violates this act, rule, regulation, or causes the death of fish, aquatic life or game or bird life is, in addition to other penalties provided by this act, liable to pay to the state, an additional sum for the reasonable value of the fish, aquatic life, game or bird life destroyed. Any monies so recovered shall be placed in the general fund of Wyoming, state treasurer's office. All actions pursuant to this article [§§ 35-502.49, 35-502.50] shall be brought in the county in which the violation occurred by the attorney general in the name of the people of Wyoming.

(c) Any person who willfully violates any provision of this act or any rule, regulation, standard, permit, license, or variance or limitations adopted hereunder or who willfully violates any determination or order of the council pursuant to this act or any rule, regulation, standard, permit or limitation issued under this act shall be fined not more than $25,000 per day violation, or imprisoned for not more than one year, or both. If the conviction is for a violation committed after a first conviction of such person under this act, punishment shall be by a fine of not more than $50,000 per day of violation or by imprisonment of not more than two years, or by both.

(d) Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained under this act or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this act, shall upon conviction, be fined not more than $10,000 or imprisoned for not more than six months, or both.

(e) Pollution which is a direct result of the malfunctioning or breakdown of any pollution source or related operating equipment beyond the control of the person owning or operating such source or equipment shall not be deemed in violation of this act, provided that prior to the initiation of any action hereunder by the administrators, the owner or operator advises the proper administrator of the circumstances and outlines an acceptable corrective program.

(f) Nothing in this act shall be construed to abridge, limit, impair, create, enlarge or otherwise affect substantively or procedurally the right of any person to damages or other relief on account of injury to persons or property and to maintain any action or other appropriate proceeding therefor. (Laws 1973, ch. 250, § 1.)

§ 35-502.50. Civil or criminal remedy.—Nothing in this act [§§ 35-502.1 to 35-502.56] shall in any way limit any existing civil or criminal remedy for any wrongful action arising out of a violation of any provision of this act or any rule, regulation, standard, permit, license, or variance or order adopted hereunder

Table 1
WATER POLLUTION CONTROL LAWS

STATE	COVERAGE*
Alabama	3
Alaska	2
Arkansas	2
Arizona	2
California	2
Colorado	3
Connecticut	3
Delaware	2
Florida	3
Georgia	1
Hawaii	2
Idaho	3
Illinois	2
Indiana	2
Iowa	4***
Kansas	4***
Kentucky	2
Louisiana	3
Maine	3
Maryland	2
Massachusetts	1
Michigan	3
Minnesota	3
Mississippi	2
Missouri	2
Montana	3
Nebraska	3
Nevada	4
New Hampshire	3
New Jersey	3
New Mexico	2
New York	2
North Carolina	3
North Dakota	2
Ohio	2
Oklahoma	3
Oregon	3
Pennsylvania	2**
Rhode Island	2
South Carolina	2
South Dakota	3
Tennessee	2
Texas	2
Utah	2
Vermont	3
Virginia	2
Washington	2
West Virginia	3
Wisconsin	2
Wyoming	2

*1. Pollution from nonpoint sources specifically within scope of statute.

2. Pollution from nonpoint sources probably within scope of statute.

3. Pollution from nonpoint sources probably not within scope of statute.

4. Pollution from nonpoint sources specifically not within scope of statute.

**Pennsylvania regulations include restrictions on nonpoint sources of pollution.

***Statutes do not explicitly omit nonpoint sources but the language is such that it would be almost impossible to construe the statutes to include nonpoint sources.

Table 2

APPROPRIATIONS

ACT: AGRICULTURAL - ENVIRONMENTAL AND CONSUMER PROTECTION APPROPRIATIONS ACT
P.L. 93-135, 87 STAT 468, OCT. 24, 1973

AMOUNT	PURPOSE OF APPROPRIATION
(1) $10.8 million	(1) Expenses of Office of Secretary of Agriculture including dissemination of agricultural information and coordination of informational work and programs
(2)(a) $15 million to carry out Act, $160 million for soil building and soil and water conservation	(2)(a) To carry out the purposes of Soil Conservation and Domestic Allotment Act (16 U.S.C.A. § 590g to 590q)
(b) $10 million to remain available until expended	(b) The Water Bank Act (16 U.S.C.A. §§ 1301 to 1312)
(3) $150.0 million to remain available until expended	(3) Rural Water and Waste Disposal Grants authorized under 7 U.S.C.A. § 1926
(4) $2.5 million	(4) Council on Environmental Improvements - to enforce the National Environmental Policy Act of 1969 and the National Environmental Act of 1970 (42 U.S.C.A. § 4321 et seq. and 42 U.S.C.A. § 4371 et seq., respectively)
(5) $161.8 million	(5) Research and Development for EPA
(6) $257.1 million to remain available until expended	(6) Pollution abatement and control activities

AMOUNT	PURPOSE OF APPROPRIATION
(7) $600 million to remain available until expended	(7) To finance construction authorized under the Federal Water Pollution Control Act, 53 U.S.C.A. § 1283 et seq.
(8) $46.2 million	(8) Enforcement activities
(9) $160.0 million to remain available until expended	(9) Soil Conservation Service activities, including inter alia soil and water conservation and research regarding watersheds and waterways
(10) $134.0 million to remain available until expended	(10) To carry out the purposes of the Watershed Protection and Flood Prevention Act
(11) $51.9 million	(11) To carry out the Croplands Adjustment Program
(12) $17.2 million to remain available until expended	(12) To carry out projects for resource conservation and development and for sound land use--as provided for in the Bankhead-Jones Land Tenancy Act and others

ACT: APPROPRIATIONS ACT, 1974
P.L. 93-162, 87 STAT 636, NOV. 27, 1973

AMOUNT	PURPOSE OF APPROPRIATION
(1) $12 million to remain available until expended	(1) To carry out the provisions of the Coastal Zone Management Act

ACT: 2ND SUPPLEMENTAL APPROPRIATIONS ACT OF 1973
P.L. 93-50, 87 STAT 99, JULY 1, 1973

AMOUNT	PURPOSE OF APPROPRIATION
(1) $6.3 million to remain available until expended	(1) Environmental Protection Agency abatement and control activities
(2) $20.0 million to remain available until expended	(2) Department of Agriculture runoff retardation and soil erosion prevention activities under the Flood Control Act (33 U.S.C.A. § 701 b-1)

ACT: D.C. APPROPRIATIONS ACT OF 1974
P.L. 93-91, 87 STAT 306, AUG. 14, 1973

AMOUNT	PURPOSE OF APPROPRIATION
(1) $45.0 million of which $11.9 million is payable from the water fund	(1) Environmental Services

ACT: APPROPRIATIONS - DEPARTMENT OF THE INTERIOR
P.L. 93-120, 87 STAT 429, OCT. 4, 1973

AMOUNT	PURPOSE OF APPROPRIATION
(1) Not to exceed $76.2 million	(1) To carry out the provisions of the Land and Water Conservation Fund Act of 1965
(2) $152.2 million	(2) Bureau of Mines - conservation, development, production and use of mineral resources, waste recycling and reclamation activities and other mine-related activities

AMOUNT	PURPOSE OF APPROPRIATION
(3) $80.4 million	(3) Bureau of Sport, Fisheries and Wildlife - for conservation, management and use of sport fishery wildlife resources, inter alia
(4) $13.7 million	(4) To carry out the purposes of the Water Resources Research Act of 1964 (42 U.S.C.A. §§ 1961 to 1961 c-7)
(5) $3.6 million to remain available until expended	(5) To carry out the purposes of the Saline Water Conversion Act (42 U.S.C.A. §§ 1959 to 1959h)
(6) $257.4 million	(6) Forest Service activities pertaining to forest land management
(7) $27.8 million	(7) State and private forestry cooperation including, inter alia, tree planting, forest management, advice to timberland owners
(8) 25% of the aggregate of all receipts during the fiscal year, to remain available until expended	(8) Oregon and California Grant Lands - road construction, reforestation and other improvements

Summary Tables

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Soil Erosion													
Cal. Pub. Res. Code §§ 9000 to 9952	I	X											
Ind. Ann. Stat. §§ 13-3-1-1 to 13-3-1-14	I	X											
Kan. Stat. Ann. §§ 2-1901 to 1918	I	X											
Mass. Gen. Laws ch. 21 §§ 18 to 25	I	X											
Mich. Comp. Laws Ann. §§ 282.101 to .117	D	X	X	X	X	X	X	X		X	X		X
Minn. Stat. Ann. ch. 40	I	X											
N.J. Stat. Ann. § 4:24-1 to -38	I	X	X			X					X	X	
N.D. Cent. Code §§ 4-22-01 to -51	I		X			X			X	X	X		
Pa. Stat. Ann. tit. 35 §§ 691.1 to .1001	I	X	X	X	X	X	X		X	X	X		X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Tex. Rev. Civ. Stat. art. 165A-4.	I	X	X			X		X		X	X		
Utah Code Ann. §§ 2-1-1 to -17	I	X	X		X	X						X	X
Va. Code Ann. tit. 21	I	X	X		X	X		X		X	X		
W.Va. Code Ann. §§ 19-21A -1 to -14	I	X	X		X	X		X		X	X		
Wisc. Stat. Ann. § 92.01 to 92.20	I	X	X		X	X		X		X	X	X	X
Wind Erosion													
Kan. Stat. Ann. §§ 2-2001 to 2011	I		X										
Tex. Rev. Civ. Stat. art. 165A-2,3	I												
Economic Poisons, Pesticides and Herbicides													
Cal. Agri. Code §§ 12751 to 12994; 14101 to 14104	D		X	X	X	X	X				X		

STATUTE	PURPOSE 1	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Hawaii Rev. Stat. §§ 149A-1 to -43	D			X	X	X	X				X		
Ind. Ann. Stat. §§ 15-3-1-1 to -16; §§ 15-3-3.5-1 to -36	I		X		X	X			X	X	X		X
Kan. Stat. Ann. §§ 2-2413 to -2437	D			X		X	X			X			X
Mass. Gen. Laws Ann. ch. 94B, §§ 11 to 22	D		X	X		X	X				X		
Mich. Comp. Laws Ann. §§ 286.160 to .173; §§ 286.411 to .420	I		X	X		X					X		X
Minn. Stat. Ann. §§ 24.071 to .077	I		X	X		X					X		X
N.J. Rev. Stat. §§ 13:1F-1 to -14	D		X			X	X			X	X		
N.D. Cent. Code §§ 19-18-01 to -11	I		X		X	X					X		X
Tex. Rev. Civ. Stat. Ann. art. 135b-5	I		X	X		X					X		X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Utah Code Ann. § 44-30 to -40	D		X	X		X	X				X		X
Va. Code Ann. § 3.1-189 to -249	D		X			X	X			X	X		X
W.Va. Code Ann. §§ 19-16A -1 to -13	I												
Wisc. Stat. Ann. §§ 94.67 to .71	I		X		X	X					X		X
Fertilizers													
Cal. Agri. Code §§ 14501 to 14552	I		X			X					X		
Mass. Gen. Laws Ann. ch. 128, §§ 64 to 83	I		X			X					X		
N.J. Rev. Stat. §§ 4:9-15.1 to .42; 4:9-21.1 to .10	I		X			X					X		
Va. Code Ann. §§ 3.1-126.1 to .13	I												
W.Va. Code §§ 19-15A-1 to -10	I												

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Wisc. Stat. Ann. § 94.66	I												

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Cal. Gvt. Code §§ 66411.-66499.37	D				X				X				
Hawaii Rev. Stat. §§ 264-6, -8, -9, -12	I			X	X	X			X				X
Hawaii Rev. Stat. §§ 62-34	I				X	X			X				X
Ind. Ann. Stat. §§ 18-5-10 -1 et seq.	I								X				
Ind. Ann. Stat. §§ 8-13-1-1 to 8-14-2-2	I		X		X				X				
Kan. Stat. Ann. §§ 68-401 to 68-433, etc.	I		X	X	X	X			X		X		X
Kan. Stat. Ann. § 14-1307	I								X				
Kan. Stat. Ann. §§ 13-1903, 13-1904	I					X			X		X		X
Mass. Gen. Laws Ann. Ch. 131, §§ 40-42	D		X	X	X	X	X			X	X	X	X
Mass. Gen. Laws Ann. Ch. 81, §§ 1-22	I			X	X	X	X						X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Mich. Comp. Laws Ann. §§ 67.22, 67.23	I					X	X				X		
Mich. Comp. Laws Ann. §§ 472.13, 472.19	I		X						X				
Mich. Comp. Laws Ann. §§ 281.131, .132, .132b, .135, §§ 322.703-.715	D		X	X	X	X	X						X
Mich. Comp. Laws Ann. §§ 103.3-103.5, 89.1, 89.2	I					X			X				X
Minn. Stat. Ann. §§ 160.27	I					X			X				X
N.J. Stat. Ann. §§ 27:7-21, 27:7-21.1	D		X		X				X				
N.J. Stat. Ann. §§ 40-180-1, 40:180-2	I								X				
N.J. Stat. Ann. §§ 40:67-1, 40:67-16.5	I					X	X		X				X
N.J. Stat. Ann. §§ 40:55A-5, 40:55A-9 to -11	I		X		X				X		X		

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
N.D. Cent. Code §§ 49-11-04 to 49-11-25, 49-01-02, etc.	D		X		X	X			X	X			X
N.D. Cent. Code §§ 24-05-20 to 24-05-22, etc.	I					X			X		X		X
N.D. Cent. Code §§ 58-03-07, -11, -14	I	X	X			X			X		X		
Utah Code Ann., title 27	I		X		X				X				
Va. Code Ann. §§ 15.1-854, 15.1-863, etc.	D		X			X	X		X	X	X		X
Va. Code Ann. §§ 33.1-12, 33.1-13, etc.	I								X				
Va. Code Ann. §§ 56-366.1, .2, 56-362	I				X	X			X	X	X		X
Va. Code Ann. §§ 36-97 to 39-119	I		X		X	X							X
Va. Code Ann. §§ 15.1-465 to 15.1-485	I	X				X	X		X	X	X		X
Va. Code Ann. §§ 62.1-116 to 62.1-127	I								X				

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Va. Code Ann. §§ 5.1-1 to 5.1-58	I		X		X				X		X		
Va. Code Ann. §§ 56-46.1, 56-449, 56-462, 56-468	I		X		X	X			X		X		X
Va. Code Ann. §§ 46.1-180.3	I			X		X			X				X
King Co., Wash. Ord. No. 1488	D		X	X	X				X	X	X		
King Co., Wash. Ord. No. 2231	D			X					X				
Bellevue, Wash. Ord. No. 1803	I		X	X	X	X	X		X		X	X	X
King Co., Wash. Ord. No. 2096	I		X	X	X	X	X		X		X	X	X
W. Va. Code Ann. §§ 17-2A-4, -8, 17-3-1 to 17-3-10, 17-4-31	D		X		X				X	X			
W. Va. Code Ann. §§ 17-4-31, 17-4-1, 17-4-38, etc.	I		X		X	X			X				X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
W. Va. Code Ann. §§ 8-12-5, 8-12-13, 8-12-14	I		X	X		X	X			X	X		X
Wisc. Stat. Ann. §§ 31.01-31.06, 31.38, etc.	D		X	X	X	X			X	X	X	X	
Wisc. Stat. Ann. §§ 81.01 (1), 83.01(7)(b), 84.07(1)	D				X				X				

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Strip and Surface Mining													
Colo. Rev. Stat. Ann. §§ 34-32-101 to 34-32-118	D	X	X	X	X	X			X		X		X
Hawaii Rev. Stat. § 181-1 to 181-10	D	X		X	X	X			X	X	X		
Hawaii Rev. Stat. § 183-42	D		X	X		X							
Idaho Code Ann. §§ 47-1312 to 47-1324	D		X	X	X	X			X	X	X	X	X
Idaho Code Ann. §§ 47-1501 to 47-1518	D	X	X	X	X	X			X	X	X		X
Ind. Ann. Stat. §§ 13-4-6-1 to 13-4-6-13	D	X	X	X	X	X			X		X		X
Ind. Ann. Stat. §§ 14-4-2-1 to 14-4-2-14	D		X	X	X	X			X		X		X
Ind. Ann. Stat. §§ 14-4-2.1-1 to 14-4-2.1-8	I												
Kan. Stat. Ann. §§ 49-401 to 49-424	D	X	X	X	X	X			X	X	X	X	

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Mich. Comp. Laws Ann. §§ 425.181 to 425.188	D	X	X			X				X	X		
Minn. Stat. Ann. §§ 93.43, 93.44 to 93.51	D	X	X	X	X	X			X	X	X		X
Mo. Rev. Stat. §§ 444.500 to 444.755	D	X	X	X	X	X			X	X	X		
Mo. Rev. Stat. §§ 444.760 to 444.786	D		X	X	X	X			X		X		X
Mont. Rev. Codes Ann. §§ 50-1034 to 50-1057	D	X	X	X	X	X			X	X	X	X	X
Mont. Rev. Codes Ann. §§ 50-1201 to 50-1226	D		X	X		X			X	X	X		X
Mont. Rev. Codes Ann. §§ 50-1501 to 50-1516	D	X	X		X	X			X	X	X		X
Mont. Rev. Codes Ann. §§ 50-1601 to 50-1617	D	X	X	X	X	X			X	X	X	X	X
N.D. Cent. Code §§ 38-14-01 to 38-14-13	D	X	X	X	X	X			X	X	X		X

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Va. Code Ann. §§ 45.1-180 to 45.1-197.2	D	X	X	X	X	X			X	X	X		X
Va. Code Ann. §§ 45.1-198 to 45.1-215	D	X	X	X	X	X			X	X	X		X
Va. Code Ann. §§ 45.1-216 to 45.1-220	I	X	X										
W.Va. Code Ann. §§ 20-6-1 to 20-6-32	D	X	X	X	X	X			X	X	X		X
Coal Mining													
Ind. Ann. Stat. §§ 22-10-2-4, 22-10-8-1, 22-10-8-2, 22-10-13-2	I					X			X				X
Kan. Stat. Ann. §§ 49-251, 49-252	I					X			X				X
Mont. Rev. Codes Ann. §§ 50-1401 to 50-1409	I	X	X		X	X					X		X
W. Va. Code Ann. §§ 20-6C-1 to 20-6C-8, 20-7-9, 22-1-1 to 22-1-35	D	X	X	X	X	X				X	X		X

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Sand and Gravel													
Hawaii Rev. Stat. §§ 205-31 to 205-37	I		X						X				
Ind. Ann. Stat. §§ 14-3-1-13, 14-3-1-14, 14-3-1-17, 14-3-1-22	D			X		X	X		X		X		X
Kan. Stat. Ann. §§ 70a-101 to 70a-116	I		X			X			X		X		
Tex. Rev. Civ. Stat. Ann. art. 5415g	I			X		X			X	x	X		
Va. Code Ann. § 62.1-190 to 62.1-193	I					X			X	X		X	X
Oil and Gas													
Idaho Code Ann. §§ 47-315 to 47-330	D		X	X	X	X			X	X	X	X	X
Ind. Ann. Stat. §§ 13-4-5-1 to 13-4-5-11	D		X	X	X	X			X	X	X	X	X
Ind. Ann. Stat. §§ 13-4-7-1 to 13-4-7-26	D		X	X	X	X			X	X	X	X	X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Kan. Stat. Ann. §§ 55-101 to 55-142	D		X	X	X	X			X	X	X	X	X
Mich. Comp. Laws Ann. §§ 319.1 to 319.27	D		X	X	X	X			X		X		X
Mich. Comp. Laws Ann. §§ 319.211 to 319.236	D		X	X	X	X			X		X		
Mich. Comp. Laws Ann. §§ 322.427a to 322.429	D			X		X			X		X		X
N.D. Cent. Code §§ 38-08-04 to 38-08-17, 38-12-01 to 38-12-05	D		X	X	X	X			X	X	X	X	X
Tex. Rev. Civ. Stat. Ann. art. 5351, 5366	D		X						X		X		
Tex. Rev. Civ. Stat. Ann. art. 5421c (6)	D		X						X		X		
Tex. Rev. Civ. Stat. Ann. arts. 6008, 6014, 6016	D	X	X	X		X			X		X		
Tex. Rev. Civ. Stat. Ann. art. 6029, 6029A	D		X	X		X			X		X		

STATUTE	PURPOSE 1	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Utah Code Ann. §§ 40-6-1 to 40-6-17	I		X		X	X				X	X	X	X
Va. Code Ann. §§ 45.1-105, 45.1-108 to 45.1-115, 45.1-141 to 45.1-143	D	X	X	X	X	X			X	X	X	X	X
W.Va. Code Ann. §§ 22-4-1 to 22-4-19	I		X	X	X	X			X	X	X	X	X
W.Va. Code Ann. §§ 22-4A-1 22-4A-15	I		X		X	X			X	X	X		X
Water Wells and Salt Wells													
Mich. Comp. Laws Ann. § 319.251 to 319.253	D								X		X	X	
Minn. Stat. Ann. §§ 156A.01 to 156A.08	D		X	X	X	X			X		X		X
Texas Water Code Ann. §§ 23.001 to 23.004	D		X			X							X
Miscellaneous													
Hawaii Rev. Stat. § 183-41	D	X	X		X	X					X		

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STATUTE	PURPOSE 1	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Ind. Ann. Stat. § 18-1-6-15	I			X									
King Co., Wash. Grading Ord. No. 1488, Jan. 22, 1973	D			X		X			X	X	X		X
Mich. Comp. Laws Ann. § 425.171	D	X											
Minn. Stat. Ann. §§ 93.283, 93.34, 93.43	D		X	X		X			X		X		X
Tex. Rev. Civ. Stat. Ann. art. 5421b-1	D		X						X				
Wisc. Stat. Ann. § 107.05, 107.06	D		X	X									X
Plugging													
Ind. Ann. Stat. §§ 13-4-4-1 to 13-4-4-8	D					X					X	X	
Ind. Ann. Stat. §§ 13-4-8-1 to 13-4-8-2	I					X			X		X		

STATUTE	PURPOSE 1	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Kan. Stat. Ann. §§ 19-2504 to 19-2506	I					X					X		
Tex. Rev. Civ. Stat. Ann. art. 6005	D		X			X					X		
Tex. Rev. Civ. Stat. Ann. art. 8280-137 § 28	D		X			X							
Va. Code Ann. § 45.1-128 to 45.1-131, 45.1-136 to 45.1-144	D					X			X	X	X	X	X
W.Va. Code Ann. § 22-7-1 to 22-7-[illegible]	I				X	X				X	X		X
Disposal													
Kan. Stat. Ann. §§ 55-1003 to 55-1007	D	X	X		X	X			X	X	X		X
Tex. Water Code Ann. §§ 22.001 to 22.184	D		X	X					X	X	X		
Va. Code Ann. §§ 45.1-221 to 45.1-225	I					X							

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Hawaii Rev. Stat. §§ 186-1 to 186-12	I					X			X		X		
Hawaii Rev. Stat. § 183-41	D		X		X	X			X		X	X	
Idaho Code §§ 38-1301 to 38-1312	D		X			X			X		X		X
Idaho Code §§ 38-301 to 38-312	D					X			X		X		X
Indiana Ann. Stat. §§ 6-8-2-1 to 6-8-2-20	I					X			X		X		X
Indiana Ann. Stat. §§ 19-7-1-4, 19-7-1-7, 19-7-2-7, 19-7-2-2	I								X				
Indiana Ann. Stat. §§ 14-5-4-1 to 14-5-4-6	D			X		X			X		X		
Indiana Ann. Stat. §§ 19-7-17.5-1 to 19-7-17.5-8	D					X			X	X			
Kansas Stat. Ann. §§ 76-425d, 76-425f, 76-435	D		X						X				

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Mass. Gen. Laws Ann. Ch. 132, §§ 1,6,9,31,34	D		X			X			X		X		
Mass. Gen. Laws Ann. Ch. 102, §§ 17,19,22,28	D			X		X			X			X	X
Mass. Gen. Laws Ann. Ch. 132 §§ 40-46, Ch. 91, §§ 30,30A	I			X		X			X	X	X	X	X
Mass. Gen. Laws Ann. Ch. 48, § 16-20	D					X			X		X		
Mass. Const. Amend. Ar. 41	I								X				
Mich. Comp. Laws Ann. §§ 320.101-320.107	I								X				
Mich. Comp. Laws Ann. §§ 320.201-320.210	I		X						X				
Mich. Comp. Laws Ann. §§ 247.381-247.385	D								X				
Mich. Comp. Laws Ann. §§ 320.41-320.48	D					X			X			X	X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Mich. Comp. Laws Ann. §§ 320.301 to 320.314	I			X		X			X		X		X
Minn. Stat. Ann. §§ 89.001-89.38	D		X			X			X		X		X
Minn. Stat. Ann. § 92.321, 92.45	D								X				
Minn. Stat. Ann. §§ 270.31 -270.39	D					X			X		X		
Minn. Stat. Ann. §§ 88.01-88.21	D		X			X					X		X
Minn. Stat. Ann. §§ 348.01 -348.05	D					X			X		X		
N.J. Stat. Ann. §§ 13:1B-15.100 to 13:1B-15.104, 13:1B-65	D								X	X			
N.J. Stat. Ann. §§ 13:8-1 to 13:8-16	D								X	X			
N.J. Stat. Ann. §§ 13:9-23 to 13:9-26, 13:9-36	D		X			X			X	X	X	X	X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
N.D. Cent. Code §§ 57-57-01 to 57-57-08	I					X			X		X		
Ore. Rev. Stat. §§ 527.610 to 527.990	D		X			X			X		X		X
Va. Code Ann. §§ 10-32, 10-33, 10-37, 10-43, 10-55, 10-84, to 10-90	I					X			X				X
Va. Code Ann. § 29-23	D								X				
Va. Code Ann. § 2.1-106.8	D								X				
Va. Code Ann. §§ 62.1-194, 62.1-194.2, 62.1-194.3	D					X			X	X		X	X
Va. Code Ann. § 10-90.20-10-90.29	D								X				
Wash. Rev. Code Ann. §§ 76.09.010 to 76.09.900	D	X	X			X			X	X	X		X
W.Va. Code Ann. § 61-3-47	D					X			X		X	X	X
Wisc. Stat. Ann. §§ 70.335, 77.01-77.16	D	X	X			X			X	X	X		X

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Wisc. Stat. Ann. §§ 28.005 -28.23	D	X	X			X							X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Citizen Suits													
Ind. §§ 13-6-1-1 to 13-6-1-6	D				X	X	X			X			X
Mich. §§ 691.1201-691.1206	D					X	X			X			X
Mass. Ch. 30A, Sec. 10A	D			X	X		X					X	
Minn. §§ 116B.01-116B.13	D					X	X			X			X
Wisc. Stat. Ann. § 227.06	I				X		X			X			
Coastal Zone Protection													
Cal. Pub. Res. Code §§ 27000-27650	I	X	X	X	X	X	X				X	X	X
Haw. Tit. 13, §§ 205A-1 to 205A-3	I	X				X	X				X		
Mass. Ch. 130, §§ 23, 24, 25, 26, 27	D			X		X	X				X	X	
Mich. Comp. Laws Ann. §§ 281.631-281.645	D	X	X			X	X				X		

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Minn. Stat. Ann. §§ 105.485, 394.37, 462.362	D	X	X			X	X			X			X
Tex. Rev. Civ. Stat. Art. 5415e-1	I	X	X	X			X						
Critical Areas													
Minn. §§ 116G.01-116G.14	I	X	X	X			X						
Va. §§ 10-187 to 10-196	D	X					X						
Financial Incentives													
N.J. §§ 13:1H-1 to 13:1H-7	D						X						
Va. §§ 58-769.4-58-769.16	I	X					X						
Floodplain Regulations													
Kan. §§ 12-734-12-735	I		X		X		X						
Minn. §§ 104.01-104.07	I					X	X				X	X	X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
General Health and Welfare Controls													
Kan. § 13-436	I		X			X	X				X		
Mich. §§ 41.181-41.183	I					X	X						X
Mich. §§ 67.1, 67.49	I					X	X				X		X
General Pollution Controls													
Haw. Tit. 9, § 103-61	D						X						
Ind. §§ 16-1-3-13, 16-1-3-27	D		X		X	X	X				X		
Ind. §§ 16-1-26-1, 16-1-26-2	D					X	X					X	
Ind. §§ 18-1-1.5 to 18.1.1.5-30	D			X		X	X			X			X
Ind. §§ 19-3-1.1-8, 19-3-.1.-10	D		X				X			X			
Mass. Ch. 12, § 11D	D					X	X	2[illegible]1<		X	X		
Mass. Ch. 111, § 2C	D		X			X	X				X		

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Mass. § 45.515(c)	D						X						
Mich. § 91.1	D					X	X						X
Mich. § 97.4	D					X	X						X
Minn. §§ 84B.01-84B.10	D						X						
Minn. § 117.49	I						X						
N.J. §§ 40:14-16 to 40:14-24	I						X						
Utah § 23-15-6	D		X			X	X						X
Va. Const. Art. XI, §§ 1-2	D						X						
Va. §§ 10-178. 10-179	D						X						
Va. §§ 15.1 -505, -510, -510.2	D		X			X	X						X
Va. §§ 15.1-854, -863, -901, -905	D		X			X	X			X			X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Va. ∮ 62.1-194.1	D					X	X		X	X		X	X
Honolulu ∮∮ 7-101 to 7-119	D		X	X	X		X				X		
Wash. Co., Ore. Ord. No. 59	D		X	X	X	X	X			X	X	X	X
Wash. Co., Ore. Ord. No. 83	D		X	X	X	X	X		X		X		X
Wash. Co., Ore. Ord. No. 88	I		X	X	X	X	X			X	X		X
City of Bellevue, Wash. Drainage Code	D			X			X			X	X		X
Land Use - Planning - Zoning													
Hawaii Rev. Stat. ∮ 183-41	D	X	X		X	X			X		X	X	
Mich. Comp. Laws Ann. ∮∮ 125.201-125.203	D	X	X		X	X	X				X		
Mich. Comp. Laws Ann. ∮∮ 125.271, .273, .277, .327	D	X	X		X	X	X				X		

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Minn. Stat. Ann. §§ 394.21 -394.37	D	x	x		x	x			x	x	x		x
Minn. Stat. Ann. §§ 462.351-462.364	D	x	x		x	x			x	x	x		
N.J. Stat. Ann. §§ 40:55-1.1 to 40:55-1.29	D	x	x						x				
N.J. Stat. Ann. §§ 58:16A-50 to 58:16A-66	D	x	x			x	x			x	x		
N.D. Cent. Code §§ 11-33-01 to 11-33-21	D	x	x		x	x	x			x			x
Lane County Ore. Code Ch. 9, §§ 9.700-9.995	D	x	x	x	x	x	x		x		x		x
Va. Code Ann. §§ 15.1-486 to 15.1-503.2	D	x	x		x	x			x	x	x		x
Va. Code Ann. §§ 15.1-1400 to 15.1-1452	D	x	x				x						
City of Bellevue, Wash. Res. No. 2007	D	x							x				

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STATUTE	PURPOSE 1	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
W. Va. Code Ann. §§ 8-24-1 to 8-24-38, 8-24-66 to 8-24-71	D	X	X	X		X	X		X	X	X		X
Wisc. Stat. Ann. §§ 59.97, 59.971, 87.30	D	X	X		X	X	X		X		X	X	
Nuisances - Obstructions													
Mich. Comp. Laws Ann. §§ 66.2, 66.10, 67.20	D					X	X				X		X
Mich. Comp. Laws Ann. §§ 89.2, 89.20, 90.12, 102.1, .11, .13, .14	D					X	X				X		X
Minn. Stat. Ann. §§ 412.221, 412.231, 412.863	D					X	X				X		X
Minn. Stat. Ann. §§ 609.031, 609.032, 609.74, 609.75	D					X	X						X
N.D. Cent. Code §§ 42-01-01 to 42-02-11	D					X	X			X	X		X
Wash. Co., Ore. Ord. No. 74	D					X	X				X		X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Tex. Rev. Civ. Stat. Art. 1015, 1146, 1175	D					X	X				X		X
Va. Code Ann. §§ 15.1-867, 15.1-901 to 15.1-907	D					X	X				X		X
W. Va. Code Ann. §§ 8-21-1 to 8-21-14	D		X			X	X				X		
Prevention of Loads Spilling on Highway													
Mass. Gen. Laws Ann. Ch. 85, § 36	D					X	X				X		
Mich. Comp. Laws Ann. §§ 257.1-257.923	D		X			X	X						X
Minn. Stat. Ann. §§ 169.80-169.89	I			X		X	X				X		X
N.J. Stat. Ann. §§ 27:1-1 to 27:1-20, 27:7-44	I		X			X	X				X		
N.J. Stat. Ann. §§ 39:4-77, 39:5-1 to 39:5-47	D		X			X	X				X	X	X
Tex. Water Code Ann. §§ 24.001-24.046	I		X	X			X						

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Utah Code Ann. 27-12-8, 27-12-146, 27-12-147	D		X			X	X				X		
Va. Code ǂ 33.1-350	I					X	X						X
Va. Code Ann. ǂǂ 46.1-16, 46.1-343	I			X		X	X						X
W. Va. Code Ann. ǂǂ 17C-2-3, 17C-17-6, 17C-18-1	D					X	X						X
Wisc. Stat. Ann. ǂǂ 346.87-346.95, 348.10, 348.11	D					X	X				X		
Soil Erosion and Sedimentation Control													
Calif. Pub. Res. Code ǂǂ 9000-9962	I	X							X				
Haw. Rev. Stat. ǂǂ 180-1 to 180-17	I	X	X						X				
Haw. Rev. Stat. ǂǂ 180C-1 to 180C-4	I								X				
Rev. Ordinances of Honolulu, Hawaii ǂǂ 21-1104, 21-1301	D				X				X				

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Ind. Ann. Stat. §§ 13-3-1 -1 to 13-3-1-14	I	X							X				
Kan. Stat. Ann. §§ 2-1901 to 2-1918	I	X							X				
Kan. Stat. Ann. §§ 29-501 to 29-508	I								X				
Kan. Stat. Ann. §§ 2-2001 to 2-2011	I	X	X		X	X			X		X		
Mont. Co., Md. Code 1972 §§ 19-1 to 19-20	I			X		X			X	X	X	X	X
Mass. Gen. Laws Ann. Ch. 21, §§ 1-3D, 18-25	I	X							X				
Mich. Comp. Laws Ann. §§ 282.101-282.117	D	X	X	X	X	X	X	X		X	X		X
Mich. Comp. Laws Ann. §§ 282.1-282.16	I	X							X				
Minn. Stat. Ann. §§ 106.671-106.673	I		X			X			X		X		

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Minn. Stat. Ann. §§ 40.005-40.15	I	X											
N.J. Stat. Ann. §§ 4:24-1 to 4:24-37	I	X	X		X	X			X		X	X	
N.D. Cent. Code §§ 4-22-01 to 4-22-51	I	X	X			X			X	X	X		
N.D. Cent. Code §§ 50-17-01 to 50-17-09	I					X			X		X		
Tex. Rev. Civ. Stat. Art. 165A-4	I	X	X		X	X		X		X	X		
Tex. Rev. Civ. Stat. Art. 165A-2, 165A-3	I					X			X		X		
Tex. Rev. Civ. Stat. Art. 2372C	I								X				
Utah Code Ann. §§ 65-1-75, 65-1-82	I								X				
Utah Code Ann. §§ 62-1-1 to 62-1-17	I	X	X		X	X			X		X	X	
Va. Code Ann. §§ 21-1 to 21-112.21	I	X	X		X	X		X		X	X		

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
City of Bellevue, Wash. Resolution No. 2422									X				
W. Va. Code Ann. §§ 19-21A -1 to 19-21A·14	I	X	X		X	X			X	X	X		
W. Va. Code Ann. §§ 19-21B -1 to 19-21B-13	I	X	X		X	X		X		X	X		
Wisc. Stat. Ann. §§ 92.01 -92.20	I	X	X		X	X		X		X	X	X	
Special Pollution Controls													
Ind. §§ 18-1-8-1, 18-1-21 -2	D		X			X	X			X	X		
Mass. Ch. 21, § 17B	D		X		X	X	X				X		X
Mass. Ch. 40, § 8C	I	X	X			X	X				X		
Mass. Ch. 132A, §§ 13-16	D		X			X	X				X		
Mass. Ch. 184, §§ 31-33	D						X			X		X	
Mich. §§ 41.671-41.673	I						X						
Mich. §§ 455.58, 455.63	D		X			X	X					X	X

STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Minn. §§ 112.34-112.86	D	X	X		X				X				
N.J. §§ 13:17-1 to 13:17-86	I	X	X	X	X	X	X			X			X
N.J. §§ 13:18-1 to 13:18-21	D	X	X		X	X	X			X			
N.J. § 26:3-31	D		X	X		X	X						X
N.D. §§ 11-28-01 to 11-28-22	D		X			X	X			X			X
N.D. § 40-05-01	D		X			X	X						X
N.D. §§ 61-16-01 to 61-16-49	D		X		X	X	X				X		X
Utah § 10-8-15	D		X			X	X						X
Utah §§ 63-11-17 to 63-11-17.3	I	X	X			X			X				X
Va. §§ 10-167 to 10-176	I	X					X						
Va. § 15.1-292	D					X	X			X			X
Va. § 29-153	D								X				

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STATUTE	PURPOSE[1]	POWERS					ACTIVITIES PROHIBITED			REMEDIES AND ENFORCEMENT			
		Planning	Standards	Licenses, Permits	Hearings	Enforcement	Pollution Generally	Nonpoint Sources Generally	Specific Nonpoint Source Activities	Injunction	Civil Remedies --Public	Civil Remedies --Private	Criminal Penalties
Va. §§ 62.1-104 to 62.1-115 62.1-115	D				X		X						
W. Va. §§ 20-5B-1 to 20-5B-17	I		X	X	X	X	X			X	X		
Removal of Ice and Snow Salting of Roads													
Mass. Gen. Laws Ann. Ch. 85, §§ 5, 7A	I	X	X			X			X		X		
Mass. Gen. Laws Ann. Ch. 161, §§ 85, 142	I		X						X	X			
Minn. Stat. Ann. § 160.215	D								X				
Wetlands Protection													
Mass. Gen. Laws Ann. Ch. 130, § 105	D		X		X	X	X			X	X		X
N.J. Stat. Ann. §§ 13:1B-1 -3, 13:1D-1 to 13:1D-19, 13:9A-1 to 13:9A-10	D	X	X	X	X		X			X	X		
Va. Code Ann. §§ 62.1-13.1 to 62.1-13.20	D			X	X	X	X			X			X